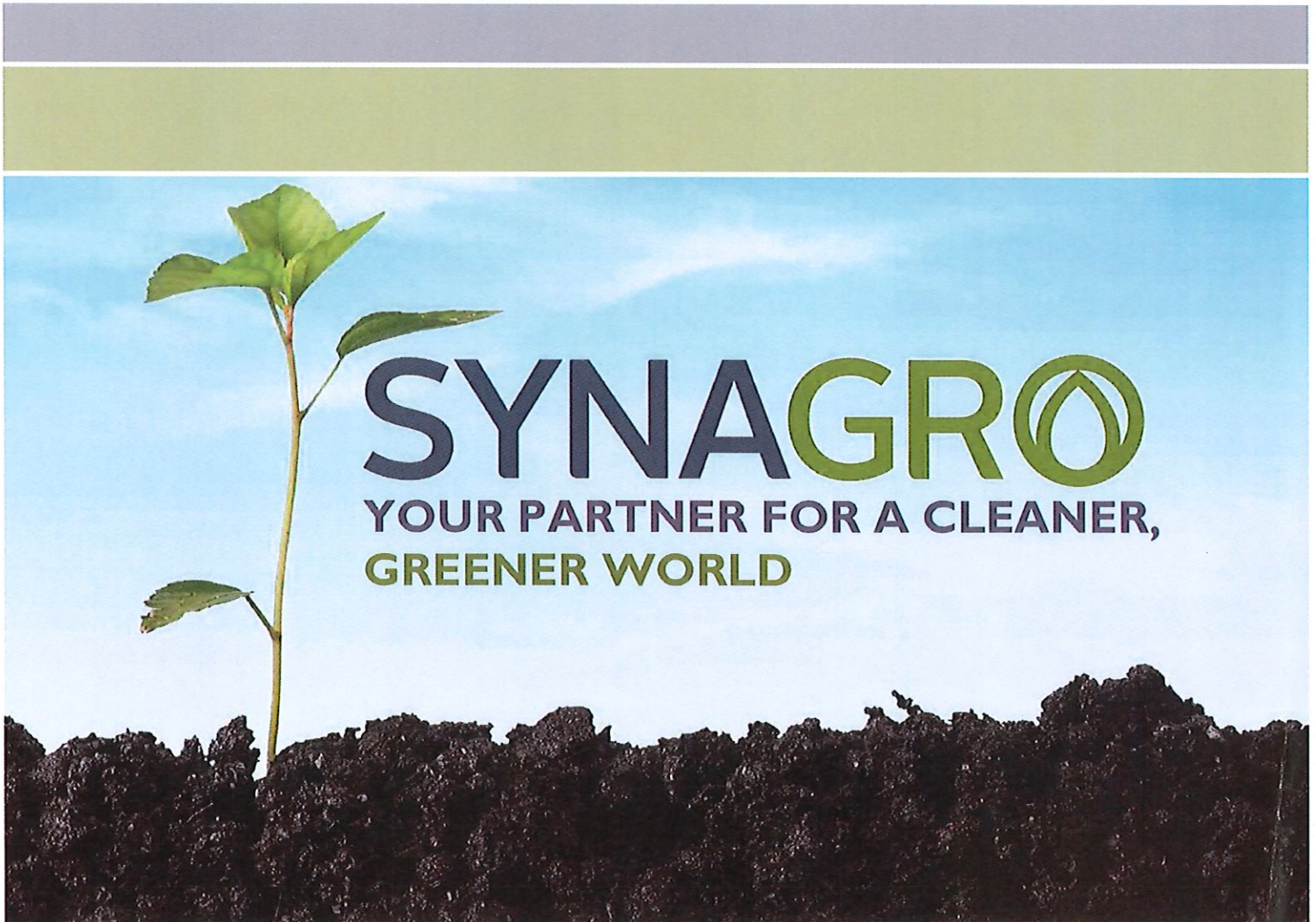


LAND APPLICATION OF BIOSOLIDS
COHOKE FARM

KW 41 (FIELDS 1-12)
KING WILLIAM COUNTY, VIRGINIA
August 2021



AUGUST 26, 2021

Mr. Neil Zahradka
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060

Dear Mr. Zahradka,

Transmitted herein for your consideration is land application site for Cohoke Farm (designated as KW 41, fields 1-12), located in King William County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (804) 443-2170 should you have any questions or require additional information.

Sincerely,



Hunter Davis

Technical Services Specialist



FIELD SUMMARY SHEET

Cohoke Farm

KW 41

SYNAGRO FIELD #	GROSS ACRES	NET ACRES	FSA TRACT #	FIELD TYPE	OWNER
41-01	44.2	44.1		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-02	6.6	6.6		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-03	30.1	30.0		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-04	43.2	42.9		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-05	53.8	53.5		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-06	13.9	13.9		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-07	27.5	27.5		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-08	4.4	4.3		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-09	40.8	39.0		Agriculture	Waters Edge Farm, LLC
41-10	3.6	3.6		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-11	17.8	17.8		Agriculture	Hugh S. Johnson R. Bruce Johnson
41-12	2.5	2.5		Agriculture	Hugh S. Johnson R. Bruce Johnson
TOTALS:	288.4	285.7			

SYNAGRO

VIRGINIA REQUEST AND CONSENT FOR BIOSOLIDS

FARM OPERATOR: COHOKO FARM LLC PHONE: (804) 513-2069ADDRESS: 875 Smith Ferry Rd West Point VA 23181

FARM LOCATION: _____

FSA TRACT #: _____

TOTAL ACRES: _____ COUNTY: King WilliamCROPS: CORN, WHEAT, BEANS

1. I agree to be responsible for adhering to the following conditions, where applicable:
 - a. The soil pH will be adjusted ≥ 6.0 when biosolids are applied. (This may be accomplished through the application of lime-treated biosolids).
 - b. Do not graze animals on the land for 30 days after the application of biosolids. In addition, animals intended for dairy production should not be allowed to graze on the land or be fed chopped foliage for 60 days after the application of biosolids. Meat-producing livestock should not be fed chopped foliage for 30 days after the application of biosolids.
 - c. Food crops for direct human consumption with harvested parts below the surface of the land shall not be harvested for 14 months after the application of biosolids.
 - d. Food crops for direct human consumption with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface ≥ 4 months prior to incorporation into the soil or 38 months when the biosolids remain on the land surface < 4 months prior to incorporation.
 - e. Food crops, feed crops and fiber crops shall not be harvested for 30 days after application of biosolids.
 - f. Public access to land with a low potential for public exposure (land the public uses infrequently including but not limited to agricultural land and forests) shall be restricted for 30 days after application of biosolids. Public access to land with a high potential for public exposure (land the public uses frequently including but not limited to a public contact site such as parks, playgrounds and golf courses) shall be restricted for 1 year. No biosolids-amended soil shall be excavated or removed from the site for 30 days following the biosolids application unless adequate provisions are made to prevent public exposure to soils, dusts or aerosols.
 - g. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.
 - h. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified on the nutrient balance sheet or the nutrient management plan approved by the Virginia Department of Conservation and Recreation to be supplied to the farm operator by Synagro at the time of application of biosolids to a specific permitted site.
 - i. Tobacco, because it has been shown to accumulate cadmium, should not be grown for three years following the application of biosolids-borne cadmium equal to or exceeding 0.45 lbs/acre.
2. I understand that this transaction is not contemplated by the parties to be a sale of goods, and that Synagro is willing to provide to me without charge the service of land applying biosolids which have been approved by the appropriate regulatory agencies for land application.
3. I understand that successful crop production depends on many variables, such as weather, soil conditions and specific farming practices and that while Synagro has experience with land application of biosolids, the responsibility for properly accommodating agricultural practices to biosolids utilization are solely mine. I have also read and understand the "Important Information About Using Biosolids as a Fertilizer" which is on the reverse side and incorporated by reference in this Request and Consent.


 OPERATOR'S SIGNATURE

DATE

IMPORTANT INFORMATION ABOUT USING BIOSOLIDS AS A FERTILIZER

Biosolids Generation

Biosolids are the accumulated, treated solids separated from water during the treatment of wastewater by public and private wastewater treatment plants (Generators). The Generator is responsible for supplying biosolids that are suitable for land application under state and federal regulations.

Benefits of Biosolids

Biosolids provide nitrogen in a form that can be taken up by plants during their growth cycle. Biosolids also add phosphorus to the soil. If lime is added to biosolids, the biosolids will have the added benefit of a liming agent. Biosolids contain primary, secondary and micronutrients that can be used by plants. Biosolids are primarily an organic material; when added to soil, they improve water and nutrient retention, reduce erosion potential and improve soil structure.

The Permitting Process

Once the farm operator requests biosolids, a Synagro representative initially evaluates the farm for truck access and field conditions. If the farm is found to be suitable and the Request for Biosolids and the Consent for Biosolids forms are signed, Synagro will collect soil samples and have them analyzed by an independent laboratory.

Synagro will then apply for any federal, state or local permits required for biosolids application. The permits will specifically identify the fields to which biosolids will be applied and will be issued to Synagro or the Generator.

After the permits are obtained (a process that may take several months or more) Synagro will apply biosolids, as they become available, to the fields. Availability of biosolids may vary because of weather conditions, contractual arrangements with biosolids generators and other factors. Although the company cannot guarantee biosolids application because of factors beyond its control, Synagro will use its best efforts to apply biosolids to the permitted fields.

The conditions outlined in the permit will apply to any and all biosolids applications made by Synagro. Synagro will not be responsible for biosolids application made by any other entity.

Periodic visits to the land application site(s) by federal, state and local regulatory staff and Synagro representatives may occur for the purpose of permitting the site, inspecting the site, applying biosolids, obtaining samples at the site and testing. Proper identification will be provided upon request.

Agronomic Considerations

Tractor-trailer units are used to deliver biosolids to the fields approved for biosolids applications. Soil compaction may occur on the travel areas used by the trucks and in areas where biosolids are unloaded for transfer to the applicator vehicle.

Since some biosolids contain lime, it is important to recognize any increase in soil pH where biosolids have been applied and exercise care in using certain herbicides. If considering the use of a sulfonylurea herbicide, particular attention should be paid to any label restrictions. High soil pH and dry weather may slow decomposition of these chemicals, resulting in carryover. For soils with low manganese levels, increased soil pH from lime addition (alone or in lime treated biosolids) may reduce manganese availability and thereby potentially reduce crop yields.

In planning a herbicide program, it should be noted that seeds may sometimes survive the biosolids treatment process -- for example, tomato seeds. Also, the organic matter additions from biosolids application (organic matter tends to tie up certain herbicides) may require increased herbicide application rates. Consult your extension agent or chemical representative for a specific recommendation.

Biosolids contain salts. Biosolids applications alone rarely cause salt problems. However, if combined with other significant salt-increasing factors, such as drought, excessive soil compaction, saline irrigation water and salt-containing fertilizers, salts may reach levels that could negatively affect germination and growth of some crops.

While odors from biosolids applications are not usually significant, and typically less than that from livestock manure, it is possible that an odor from the decomposition of organic matter may be noticed. If this occurs, it generally disappears in a short time.

Since biosolids provide nitrogen that will be released slowly throughout the growing season with diminishing carryover in subsequent years, it is important to reduce the use of nitrogen and other fertilizers to appropriate levels.

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION

FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 5/3/2029 between Hugh S. Johnson & B. Bruce Johnson referred to here as "Landowner", and Synagro Central, LLC, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in King William, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) with county documentation identifying owners, attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
52-50A	53-16	<u>54-27A</u>	53-15
53-19	53-20	52-51	<u>54-27, 55-21A</u>
53-19A	52-49	53-14	<u>54-84, 55-29</u>

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Printed name <u>Hugh S. Johnson & B. Bruce Johnson</u> By: <u>B. Bruce Johnson</u> Title: _____	Mailing Address <u>29900 King William Rd West Point, VA</u> Phone No. <u>804-513-9985</u>	Landowner Signature <u>B. Bruce Johnson</u>
* <input checked="" type="checkbox"/> I certify that I have authority to sign for the landowner as indicated by my title as executor, Trustee or Power of attorney, etc. * <input type="checkbox"/> I certify that I am a responsible official [or officer] authorized to act on behalf of the following corporation, partnership, proprietorship, LLC, municipality, state or federal agency, etc.		

Permittee:

Synagro Central, LLC, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

Printed name <u>Wayne T. Webb Jr.</u> Title <u>Technical Services Manager</u>	Mailing Address: <u>1681 Tappahannock Blvd, Tappahannock, VA 22560</u> Phone No. <u>443-2170</u>	Permittee- Authorized Representative Signature <u>Wayne T. Webb Jr.</u>
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VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: SYNAGRO CENTRAL LLC County or City: KING WILLIAM

Landowner: HUGH S. JOHNSON & R. Bruce Johnson

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

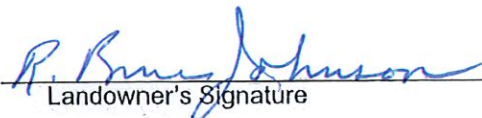
I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).


Landowner's Signature

5/3/2020
Date

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 1-16-18 between Hugh S. Johnson & B. Bruce Johnson referred to here as "Landowner", and Synagro, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in King William, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
53-20	53-14	54-27	
53-19	53-15	54-84	
53-19A	53-16	54-27A	
52-50A	52-49A	55-21A	
52-51	52-49	55-29	

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.
☒ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No	X Yes <input type="checkbox"/> No

Partners Hugh S. Johnson & B. Bruce Johnson Manager Hugh S. Johnson 875 Smith Ferry Rd WEB Point VA 23181
 Landowner - Printed Name, Title Signature Mailing Address

Permittee:

Synagro, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☒ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Wayne T. Webb, Jr. Wayne T. Webb, Jr. 10647 Tidewater Trail
 Permittee - Authorized Representative Signature Mailing Address
 Printed Name

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Synagro

County or City: King William

Landowner: Hugh S. Johnson & B. Beare Johnson

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Partner Cihke Farms by Hugh S. Johnson
Landowner's Signature

11/3/18
Date

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 5/3/20 between Waters Edge Farm, LLC referred to here as "Landowner", and Synagro Central, LLC, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in King William, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) with county documentation identifying owners, attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>
55-15E			
55-9-4			
55-9-2			

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☒ The Landowner is the sole owner of the properties identified herein.
☐ The Landowner is one of multiple owners of the properties identified herein.


In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

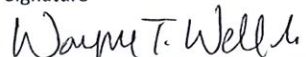
<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Printed name <u>Waters Edge Farm, LLC</u>	Mailing Address <u>875 Suck Creek Ferry Rd</u> <u>West Point, VA 2318</u>	Landowner Signature 
By: <u>[Signature]</u>	Phone No. <u>804-513-2069</u>	
Title* <u>MANAGER-OWNER</u>		
<input type="checkbox"/> I certify that I have authority to sign for the landowner as indicated by my title as executor, Trustee or Power of attorney, etc.		
<input checked="" type="checkbox"/> I certify that I am a responsible official [or officer] authorized to act on behalf of the following corporation, partnership, proprietorship, LLC, municipality, state or federal agency, etc.		

Permittee:

Synagro Central, LLC, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with [§10.1-104.2 of the Code of Virginia](#).

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

Printed name <u>Wayne T. Webb Jr.</u>	Mailing Address: <u>1681 Tappahannock Blvd, Tappahannock, VA 22560</u>	Permittee- Authorized Representative Signature 
Title <u>Technical Services Manager</u>	Phone No. <u>443-2170</u>	

Permittee: SYNAGRO CENTRAL LLC County or City: KING WILLIAM

Landowner: Waters Edge Farm, LLC

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).



Landowner's Signature

5/3/20

Date

TAX ID LANDOWNER IDENTIFICATION SHEET

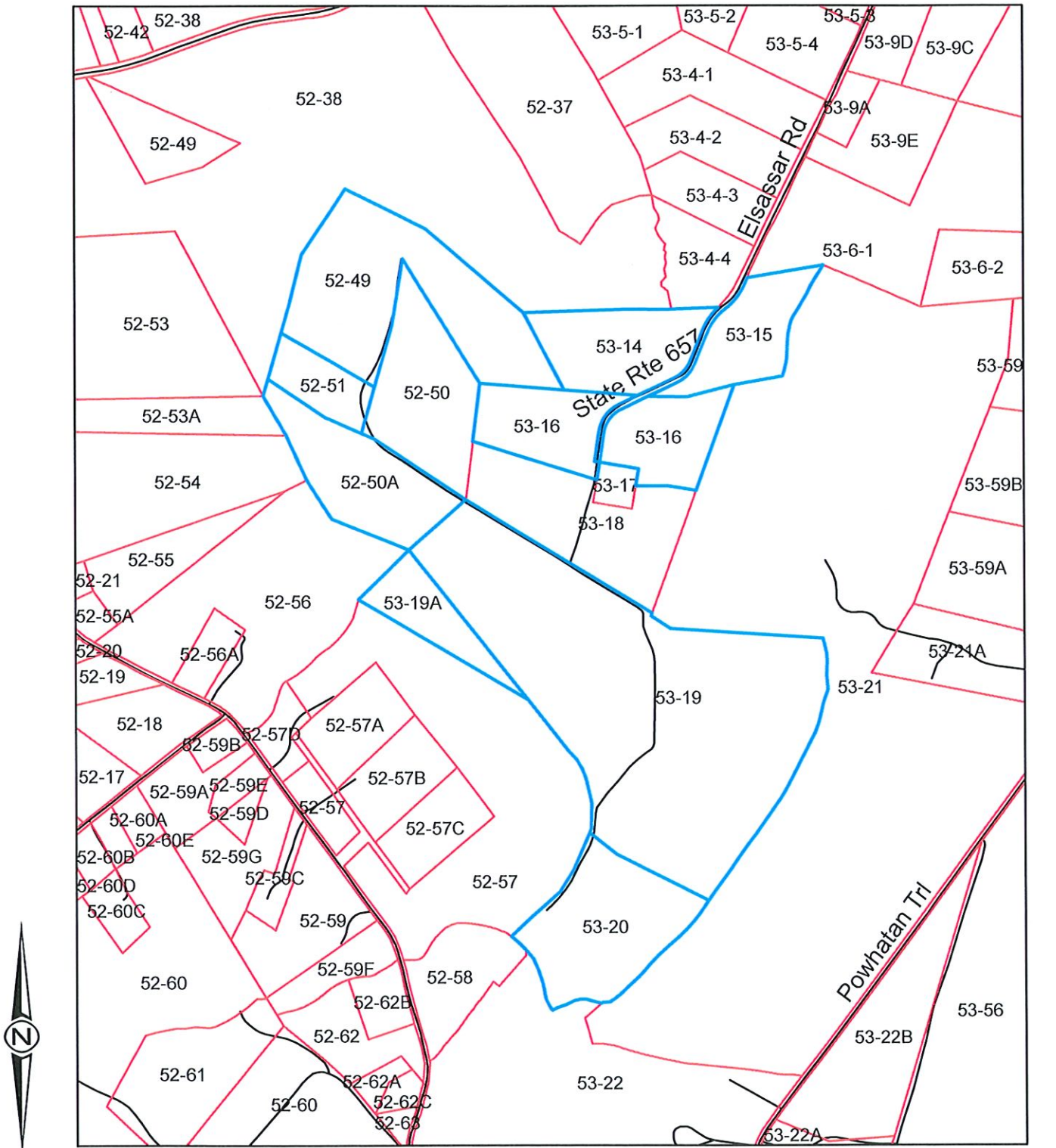
Landowner	Field Number	Tax ID
Hugh S. Johnson R. Bruce Johnson	41-01	52-50A
		53-19,19A
Hugh S. Johnson	41-02	53-16
R. Bruce Johnson		
Hugh S. Johnson	41-03	53-19
R. Bruce Johnson		53-20
Hugh S. Johnson	41-04	52-49,51
R. Bruce Johnson		53-14,15
Hugh S. Johnson R. Bruce Johnson	41-05	54-27,27A
Hugh S. Johnson R. Bruce Johnson	41-06	54-84
Hugh S. Johnson R. Bruce Johnson	41-07	54-84
Hugh S. Johnson R. Bruce Johnson	41-08	54-84
Waters Edge Farm, LLC	41-09	55-15E
		55-9-4
Hugh S. Johnson R. Bruce Johnson	41-10	55-29
Hugh S. Johnson R. Bruce Johnson	41-11	55-21A
Hugh S. Johnson R. Bruce Johnson	41-12	55-29

Field Number	Latitude (North)	Longitude (West)
41-01	37.608°	-76.999°
41-02	37.611°	-76.999°
41-03	37.604°	-76.996°
41-04	37.612°	-76.998°
41-05	37.587°	-76.938°
41-06	37.589°	-76.928°
41-07	37.591°	-76.927°
41-08	37.592°	-76.929°
41-09	37.599°	-76.915°
41-10	37.599°	-76.901°
41-11	37.591°	-76.901°
41-12	37.595°	-76.903°

*Latitude and Longitude are a random point determined by Arc View program

Haul Route:

The Location maps in conjunction with the above latitude and longitude coordinates are a route planning tool meant to be a guide to indicate suggested haul routes for various preferences: to include but not limited to all federal, state, and local granted STAA access routes.

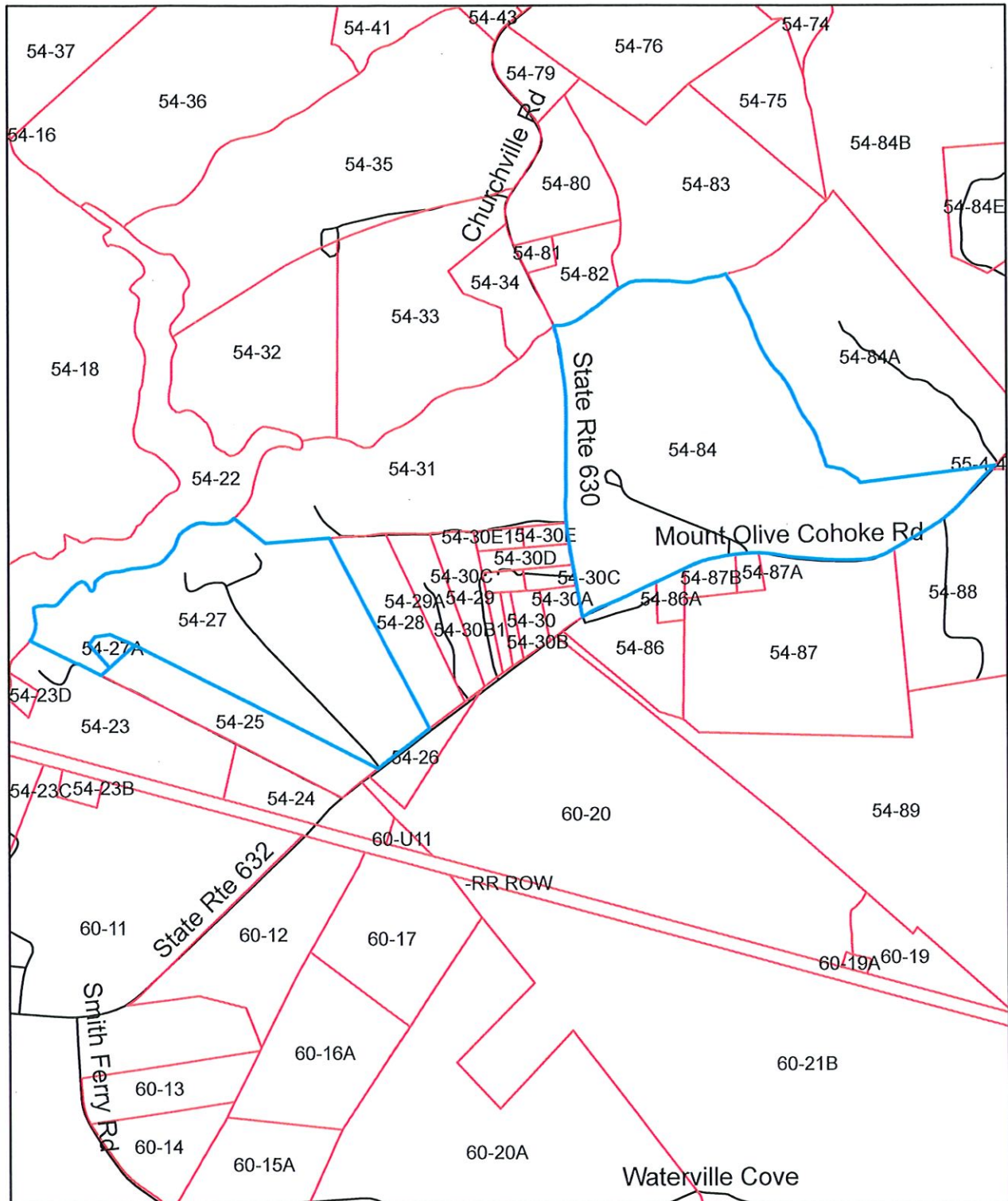


1 inch = 850 feet

TAX MAP

1:10,200

Disclaimer: Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warranted for content or accuracy. The County does not guarantee the positional or thematic accuracy of the GIS data. The GIS data or cartographic digital files are not legal representation of any of the features in which it depicts, and disclaims any assumption of the legal status of which it represents.

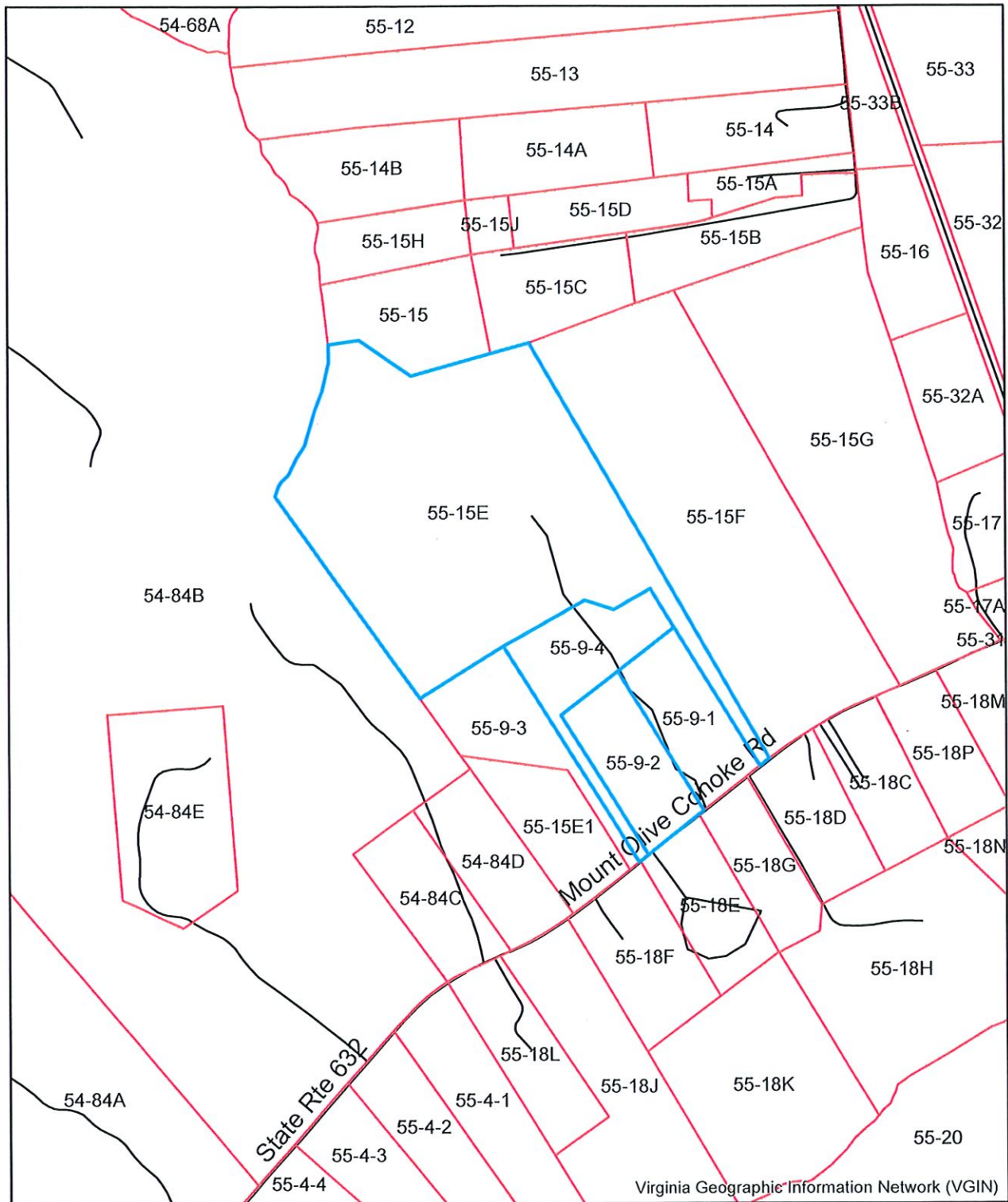


1 inch = 1,125 feet

TAX MAP

1:13,500

Disclaimer: Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warranted for content or accuracy. The County does not guarantee the positional or thematic accuracy of the GIS data. The GIS data or cartographic digital files are not legal representation of any of the features in which it depicts, and disclaims any assumption of the legal status of which it represents.

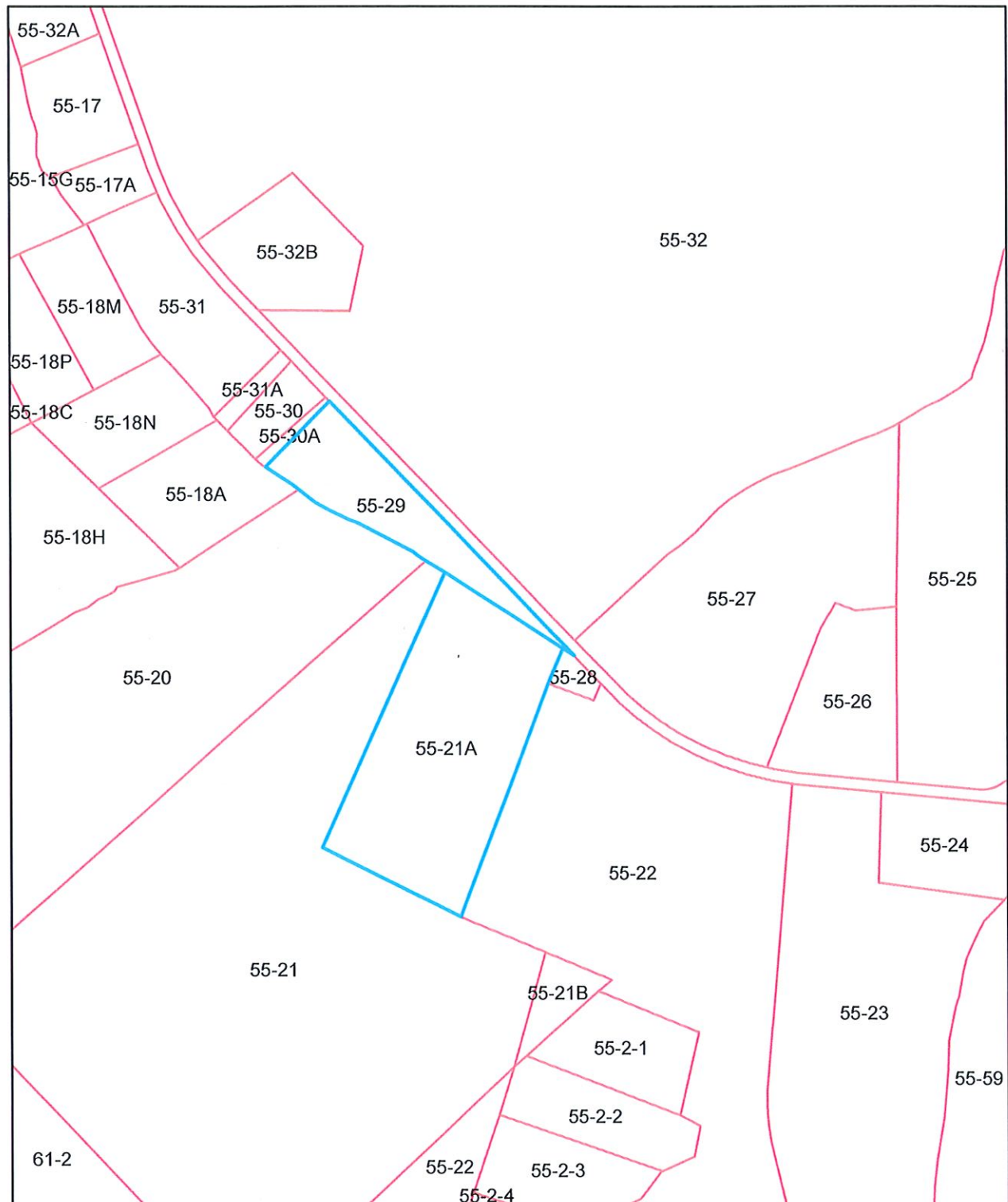


1 inch = 660 feet

TAX MAP

1:7,920

Disclaimer: Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warranted for content or accuracy. The County does not guarantee the positional or thematic accuracy of the GIS data. The GIS data or cartographic digital files are not legal representation of any of the features in which it depicts, and disclaims any assumption of the legal status of which it represents.



1 inch = 660 feet

TAX MAP

1:7,920

Disclaimer: Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warranted for content or accuracy. The County does not guarantee the positional or thematic accuracy of the GIS data. The GIS data or cartographic digital files are not legal representation of any of the features in which it depicts, and disclaims any assumption of the legal status of which it represents.

Farm Summary Report

Plan: New Plan Spring, 2020 - Summer, 2030

Farm Name: Cohoke Farm

Location: King William

Specialist: Wayne T. Webb Jr.

N-based Acres: 261.8

P-based Acres: 0.0

Tract Name: KW41

FSA Number: 0

Location: King William

Field Name: 1

Total Acres: 44.20 Usable Acres: 44.10

FSA Number: 0

Tract: KW41

Location: King William

Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
38	10B	Emporia
4	13B	Kempsville
2	22D	Nevarc Remlik
56	26B	Slagle

Field Warnings:

Field Name: 2
Total Acres: 6.60 Usable Acres: 6.60
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
54	10B	Emporia
47	26B	Slagle

Field Warnings:

Field Name: 3
Total Acres: 30.10 Usable Acres: 30.00
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
0	3A	Bibb Kinston
24	9A	Daleville
24	11A	Eulonia
13	12A	Eunola
19	13B	Kempsville
20	22D	Nevarc Remlik
1	26B	Slagle

Field Warnings:

Field Name: 4
Total Acres: 43.20 Usable Acres: 42.90
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
5	3A	Bibb Kinston
3	9A	Daleville
23	10B	Emporia
2	11A	Eulonia
9	22D	Nevarc Remlik
57	26B	Slagle

Field Warnings:

Field Name: 5
Total Acres: 53.80 Usable Acres: 53.50
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: A Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
70	11A	Eulonia
3	22D	Nevarc Remlik
5	24A	Roanoke
23	28A	Rumford Suffolk

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 6
Total Acres: 13.90 Usable Acres: 13.90
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
14	13B	Kempsville
34	22D	Nevarc Remlik
52	28B	Rumford Suffolk

Field Warnings:

Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with percent slope in excess of 15%

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 7
Total Acres: 27.50 **Usable Acres:** 27.50
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B **Hydrologic Group:** C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
15	10B	Emporia
70	13B	Kempsville
15	28B	Rumford Suffolk

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 8
Total Acres: 4.40 Usable Acres: 4.30
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
26	28B	Rumford Suffolk
61	22D	Nevarc Remlik
7	13B	Kempsville
6	10B	Emporia

Field Warnings:

Environmentally Sensitive Soils due to:

Soils with potential for leaching based on soil texture or excessive drainage

Soils with percent slope in excess of 15%

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 9

Total Acres: 40.80 Usable Acres: 39.00

FSA Number: 0

Tract: KW41

Location: King William

Slope Class: C Hydrologic Group: C

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
51	2B	Bama
28	13B	Kempsville
4	22D	Nevarc Remlik
8	22F	Nevarc Remlik
9	26A	Slagle

Field Warnings:**Crop Rotation:**

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Farm Summary Report

Plan: New Plan Fall, 2020 - Fall, 2030

Farm Name: New Farm
Location: King William
Specialist: Hunter Davis
N-based Acres: 23.9
P-based Acres: 0.0

Tract Name: KW41
FSA Number: 0
Location: King William

Field Name: 10
Total Acres: 3.60 **Usable Acres:** 3.60
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B **Hydrologic Group:** C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
13	2B	Bama
65	13B	Kempsville
21	26B	Slagle

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 11
Total Acres: 17.80 Usable Acres: 17.80
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
23	26B	Slagle
7	2B	Bama
1	9A	Daleville
48	10B	Emporia
8	11B	Eulonia
13	13B	Kempsville

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

Field Name: 12
Total Acres: 2.50 Usable Acres: 2.50
FSA Number: 0
Tract: KW41
Location: King William
Slope Class: B Hydrologic Group: C

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
[NO TEST]				

Soils:

PERCENT	SYMBOL	SOIL SERIES
83	13B	Kempsville
17	26B	Slagle

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
---------	-------	-----------

ENVIRONMENTALLY SENSITIVE AREAS

Field	Reason for Sensitive Area
41-01	Leaching Potential (Map Units 2B, 18B - 43%) High Water Potential (Map Units 7A - 18%)
41-02	Leaching Potential (Map Units 2B, 18B - 47%)
41-03	None
41-04	None
41-05	Leaching Potential (Map Units 22D - 3%) High Water Table (Map Units 24A - 5%)
41-06	Leaching Potential (Map Units 22D - 34%)
41-07	None
41-08	Leaching Potential (Map Units 22D - 61%)
41-09	Leaching Potential (Map Units 22D,22F - 12.6%)
41-10	None
41-11	High Water Potential (Map Units 9A - 1%)
41-12	None

King William County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
3A	Bibb/Kinston	Nov-June	Nov-June	Drainage
4A	Bohicket	Nov-June	Nov-June	
5A	Bojac	Jan-Dec		Leaching
6A, 6B	Bojac			Leaching
7A	Catpoint			Leaching
8A	Conetoe			Leaching
9A	Daleville	Nov-May		
14A	Kenansville			Leaching
15A	Lanexa	Jan-Dec	Jan-Dec	Drainage
16A	Mattan	Jan-Dec	Jan-Dec	Drainage
18A	Myatt	Nov-April		
20A	Osier	Nov-March		Drainage
22D, 22F	Remilk/Nevarc			Leaching
23A	Riverview		Dec-March	
24A	Roanoke	Nov-May		
29B, 29D, 29F	Tarboro			Leaching
30A	Tomotley	Nov-April		
32A	Wehadkee	Nov-May	Nov-May	

Map Legend



House/Dwelling with a well

- 200' buffer-dwelling (with conditions for reduction);
- 100' buffer-well



Rock Outcrop

- 25' buffer



Limestone Outcrop / Closed Sinkholes

- 50' buffer



Well

- 100' buffer



Lake/Pond

- 35' w/vegetative buffer; 100' without vegetative buffer



Slope which exceeds 15%



"PAS" - Publicly Accessible Site

- 200' buffer



Intermittent Stream

- 35' w/vegetative buffer; 100' without vegetative buffer



Stream/River

- 35' w/vegetative buffer; 100' without vegetative buffer



Agricultural/Drainage Ditch

- 10' buffer



Field Boundary

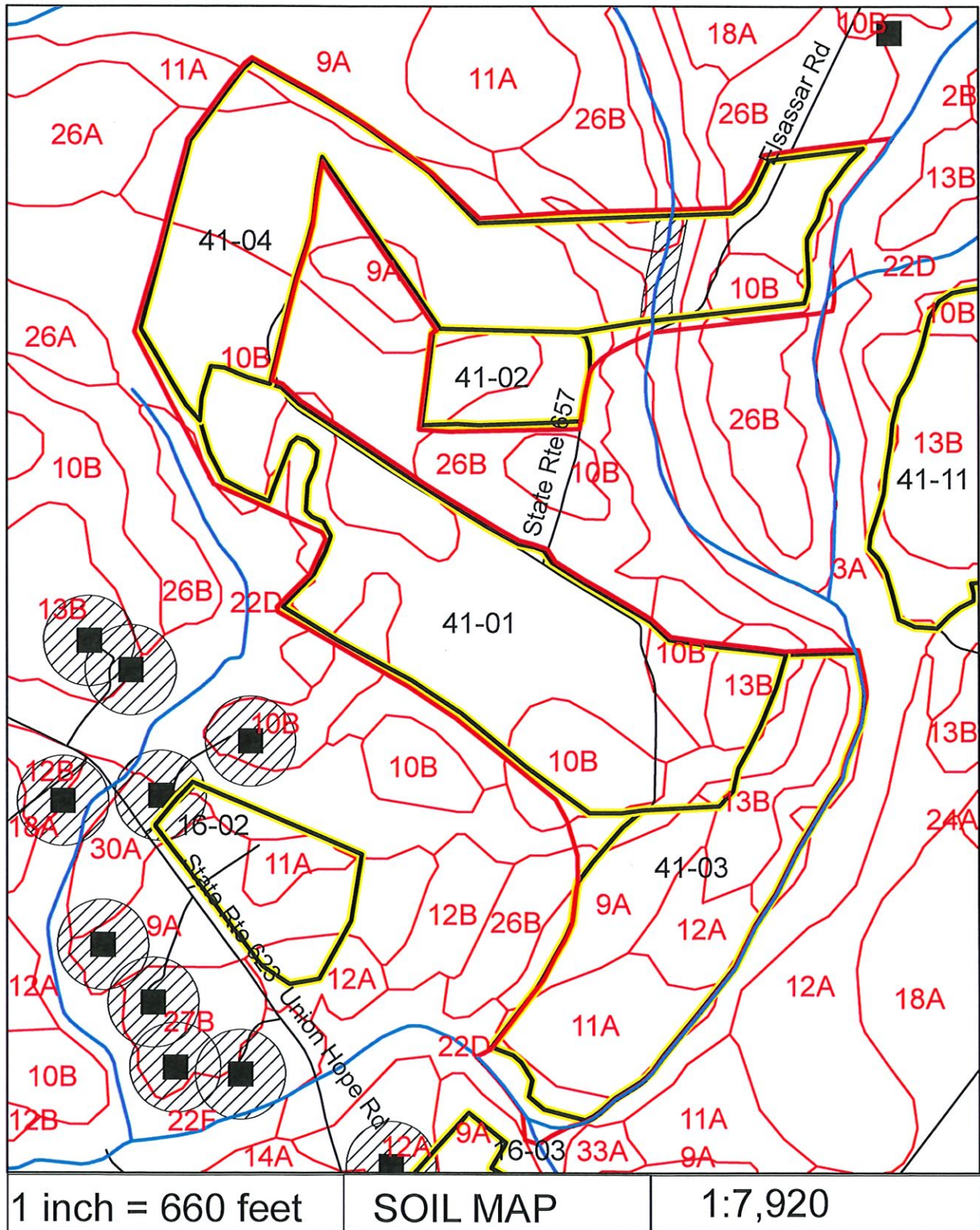


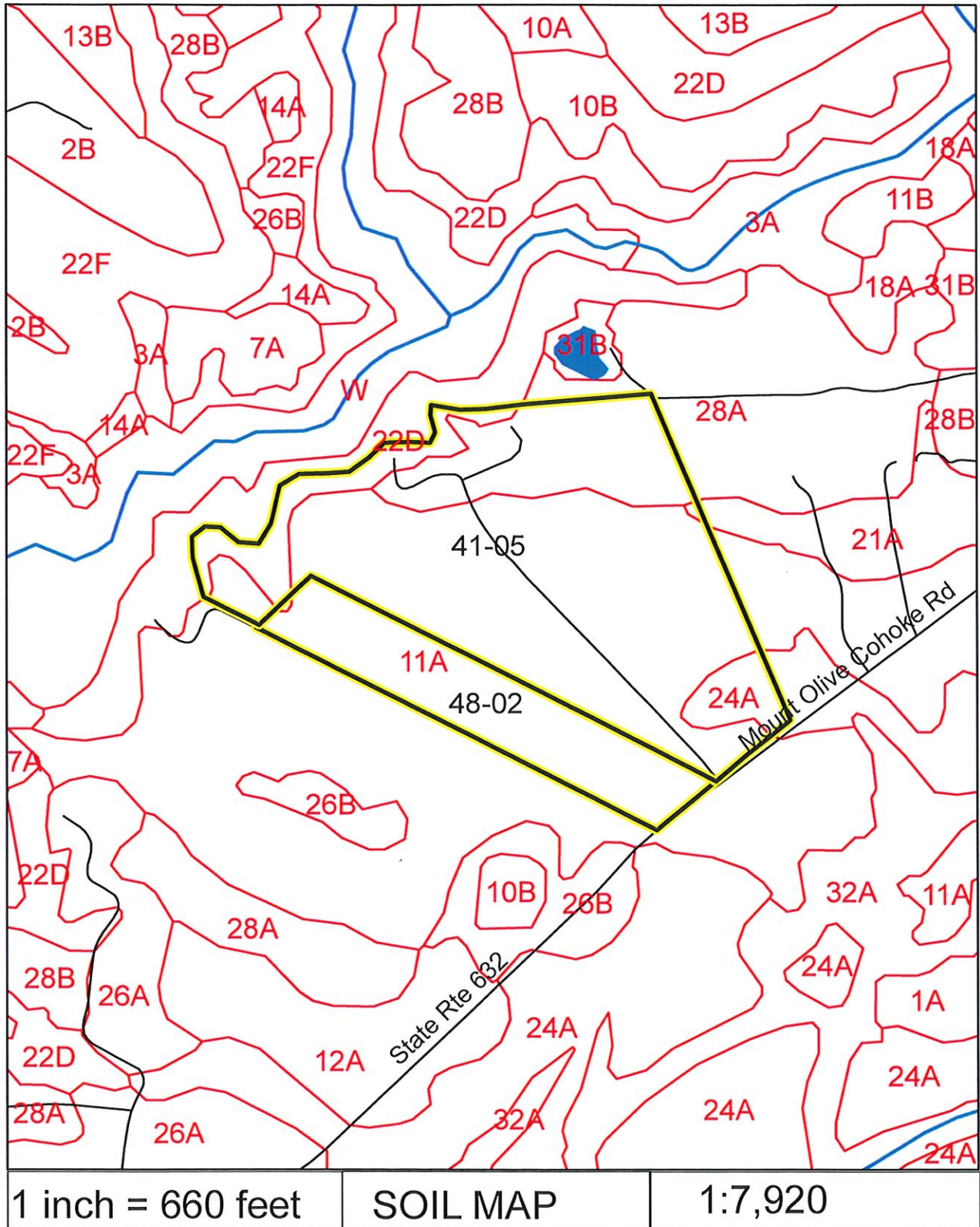
Property Line

- 100' buffer unless waiver issued



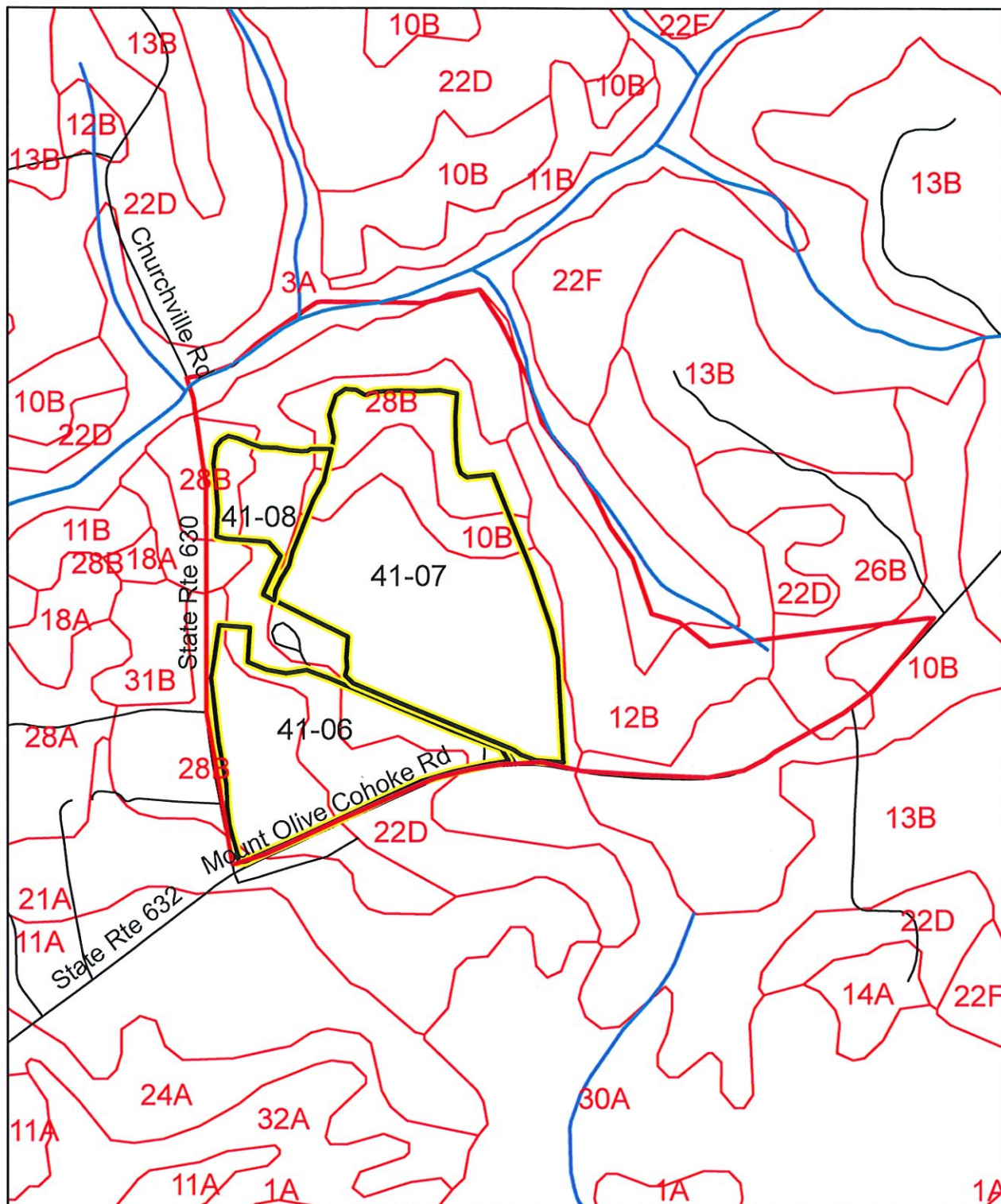
Cohoke Farm
KW 41
Fields 1-4







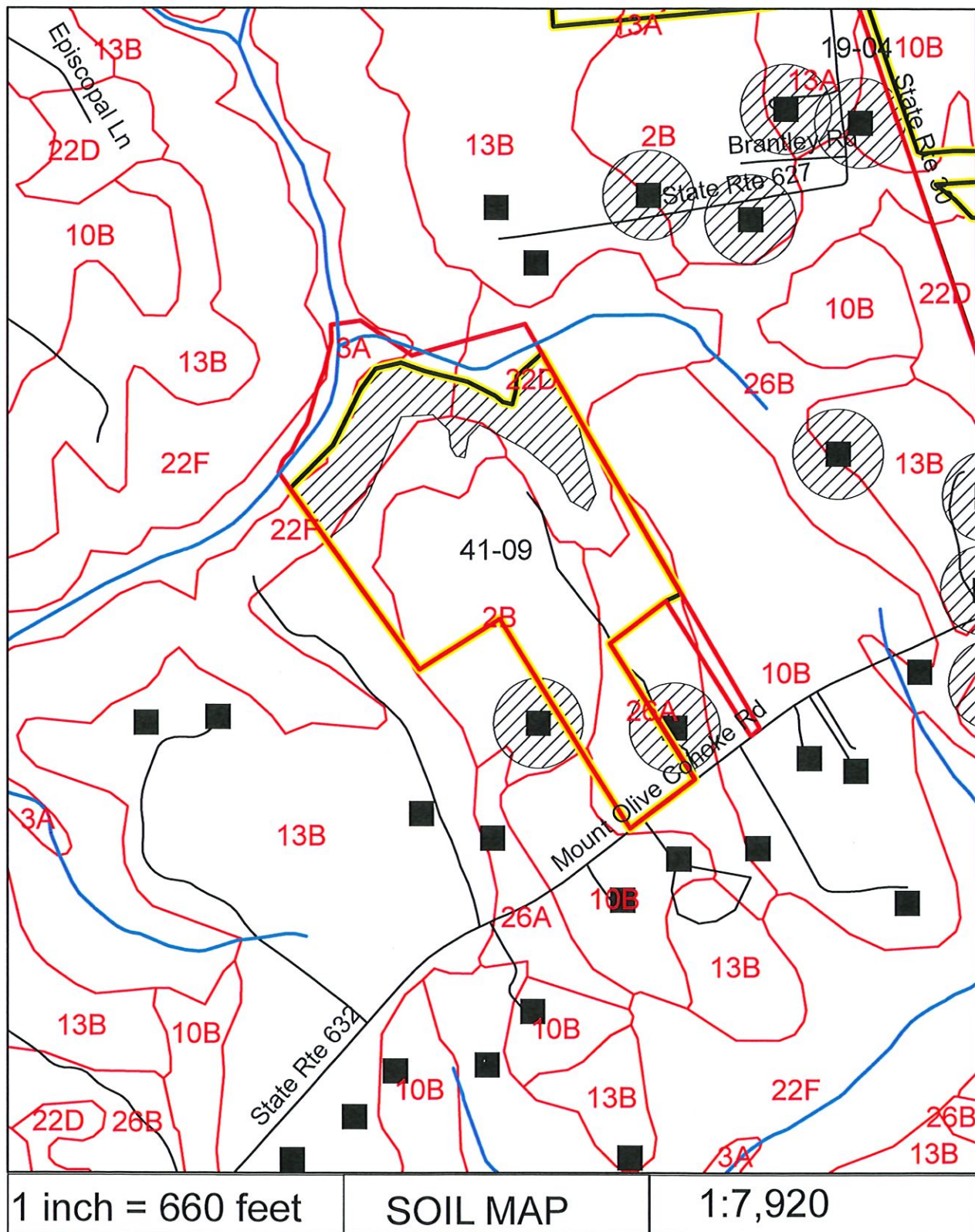
Cohoke Farm
KW 41
Fields 6-8

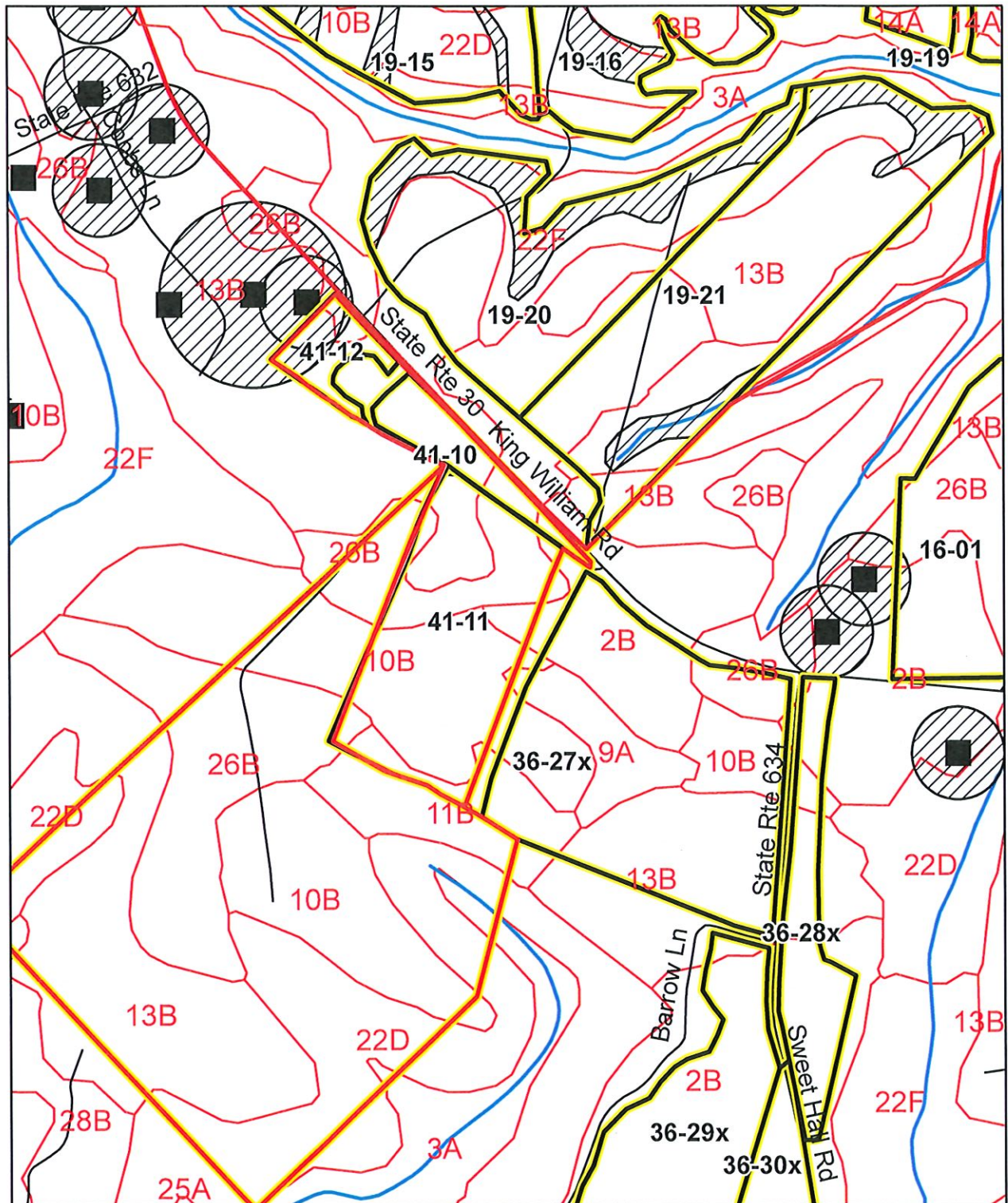


1 inch = 660 feet

SOIL MAP

1:7,920

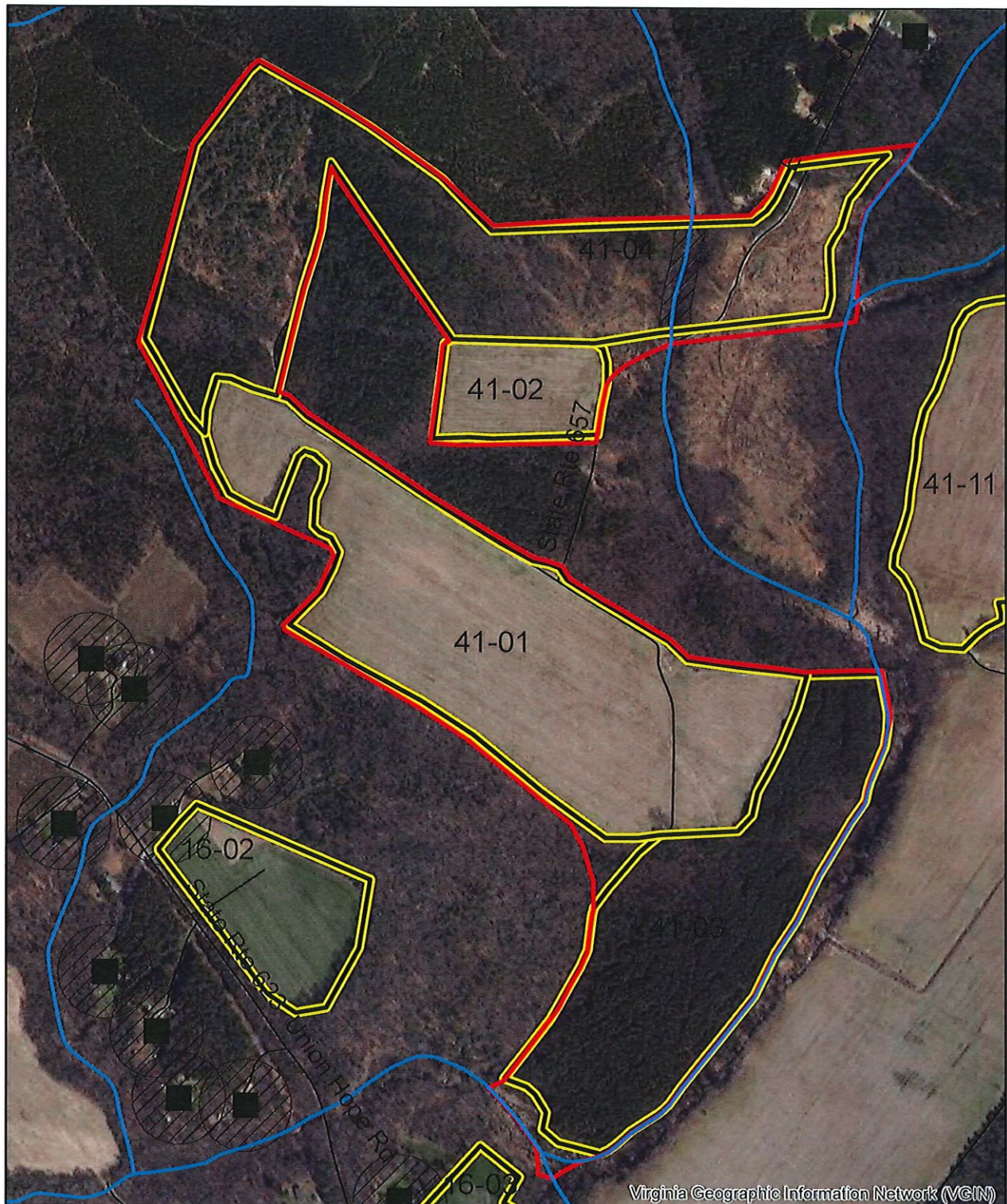




1 inch = 660 feet

SOILS MAP

1:7,920



1 inch = 660 feet	AERIAL MAP	1:7,920
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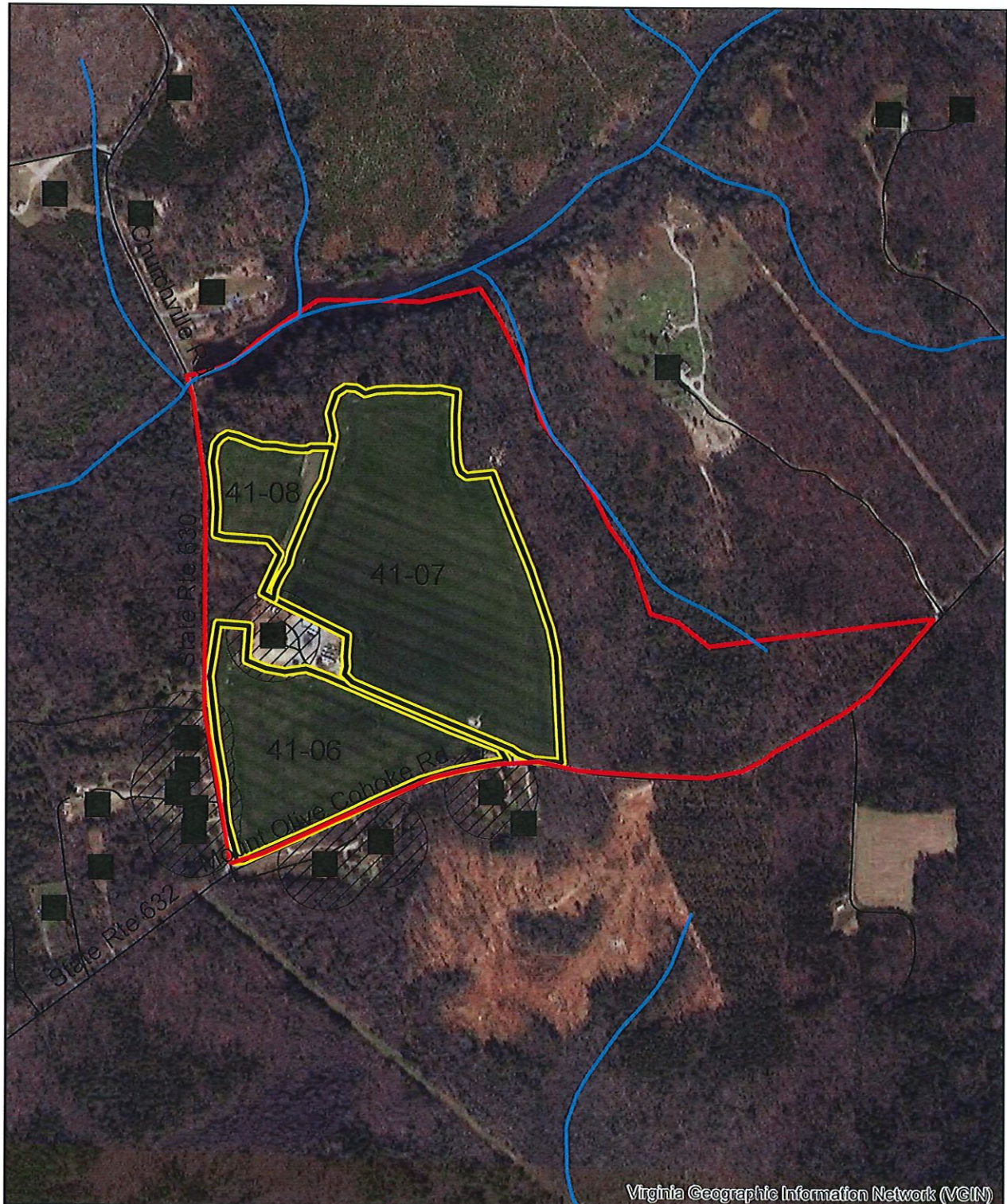
1 inch = 660 feet

AERIAL MAP

1:7,920



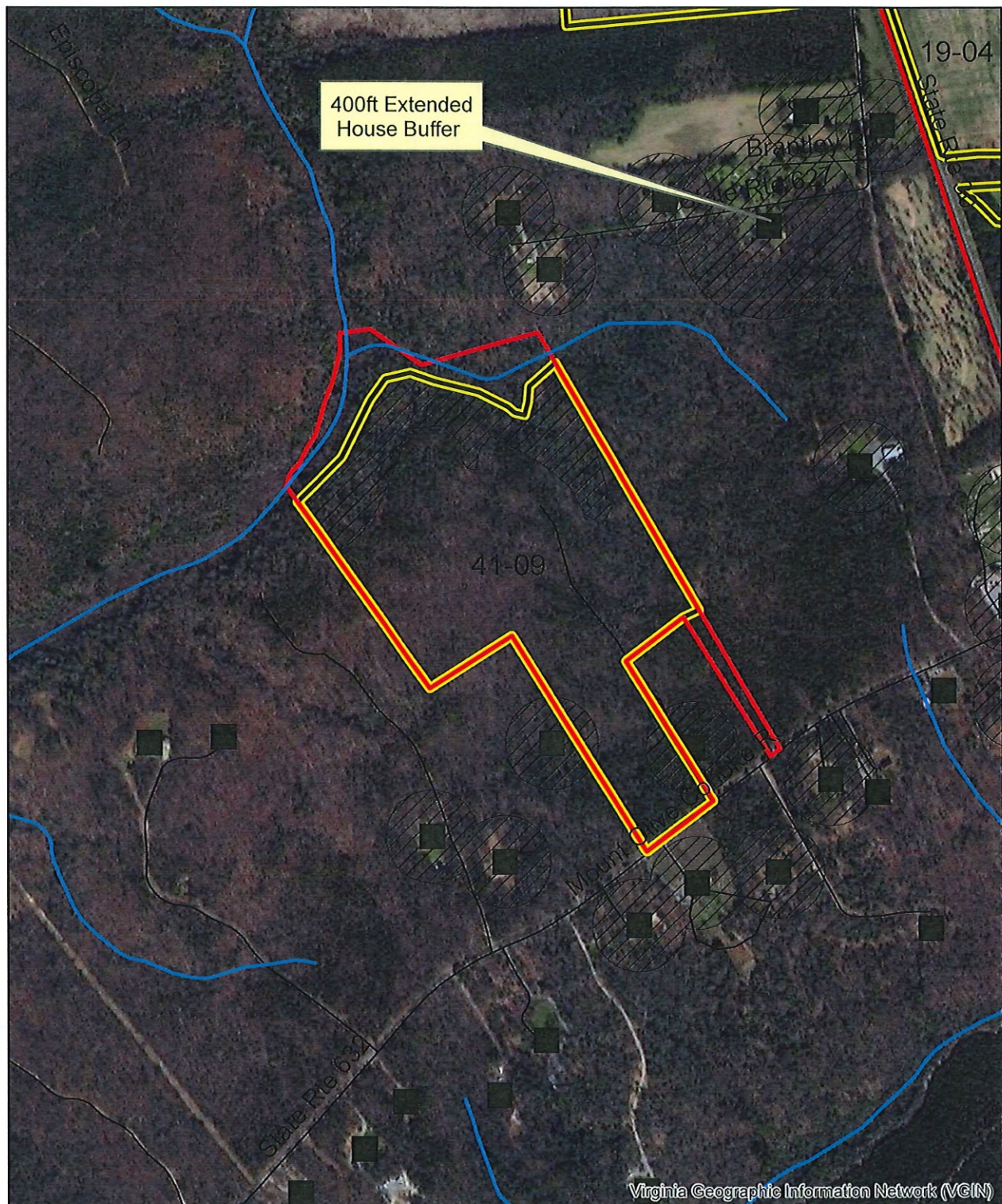
Cohoke Farm
KW 41
Fields 6-8



1 inch = 660 feet

AERIAL MAP

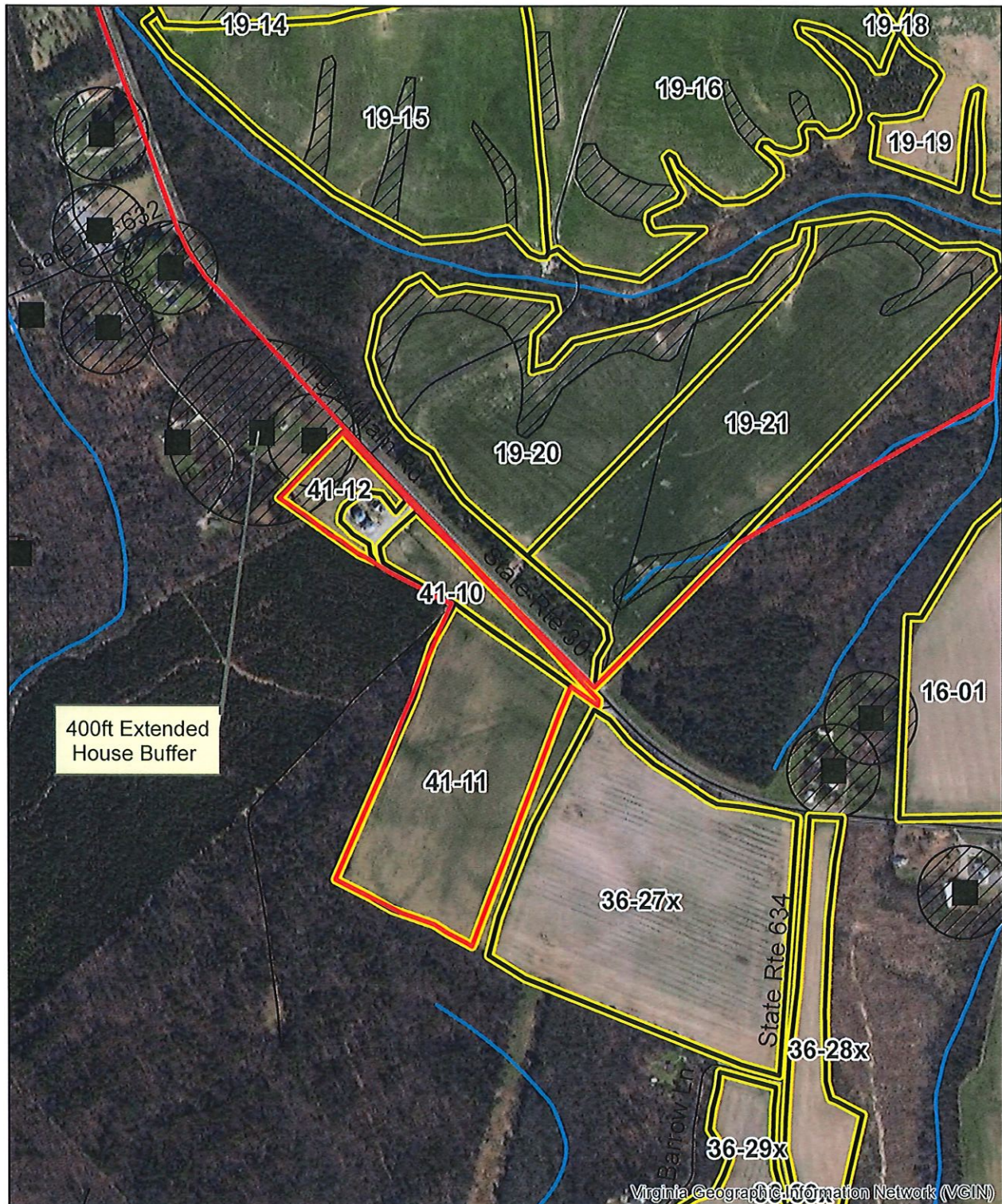
1:7,920



1 inch = 660 feet

AERIAL MAP

1:7,920



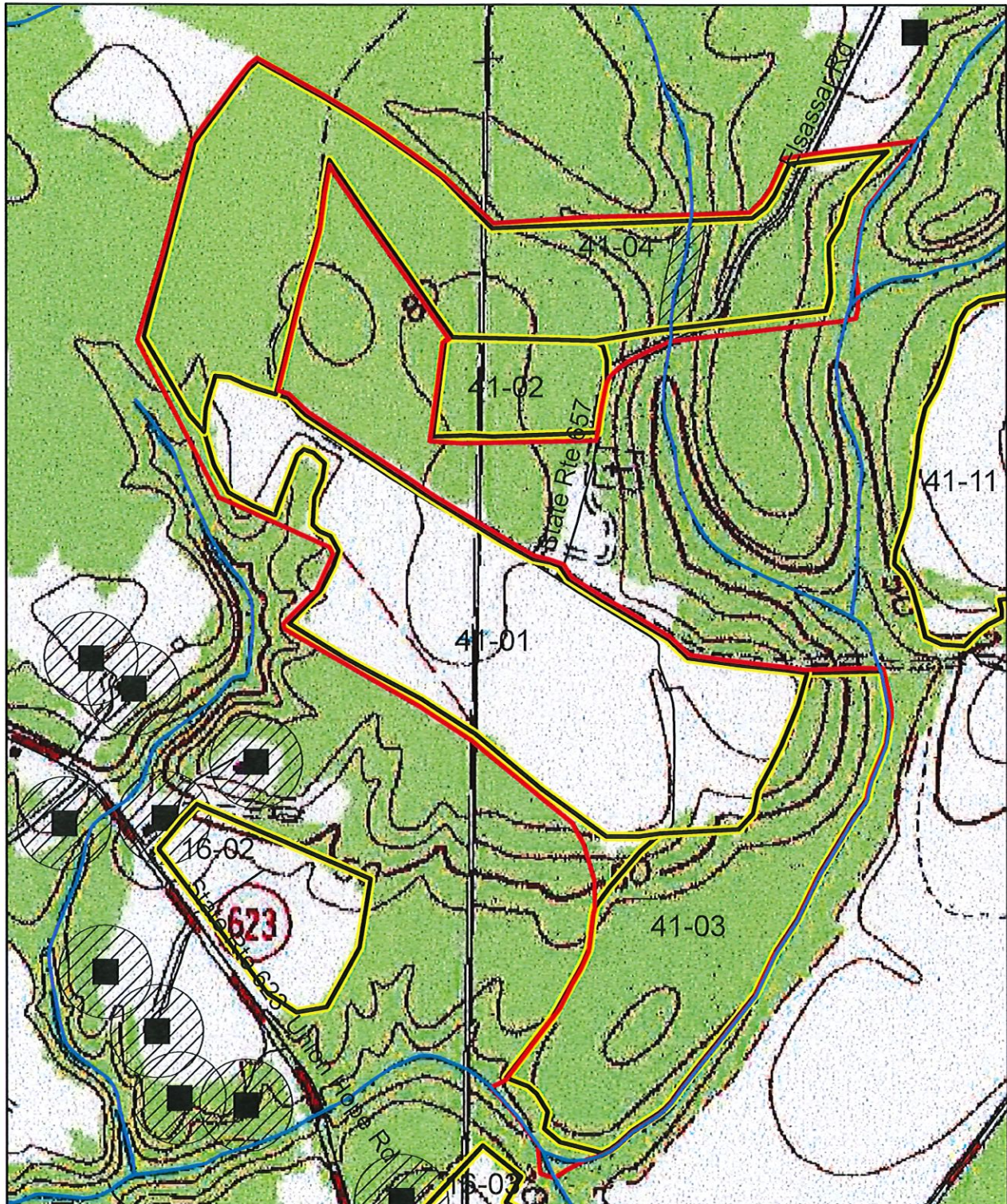
1 inch = 660 feet

AERIAL MAP

1:7,920



Cohoke Farm
KW 41
Fields 1-4

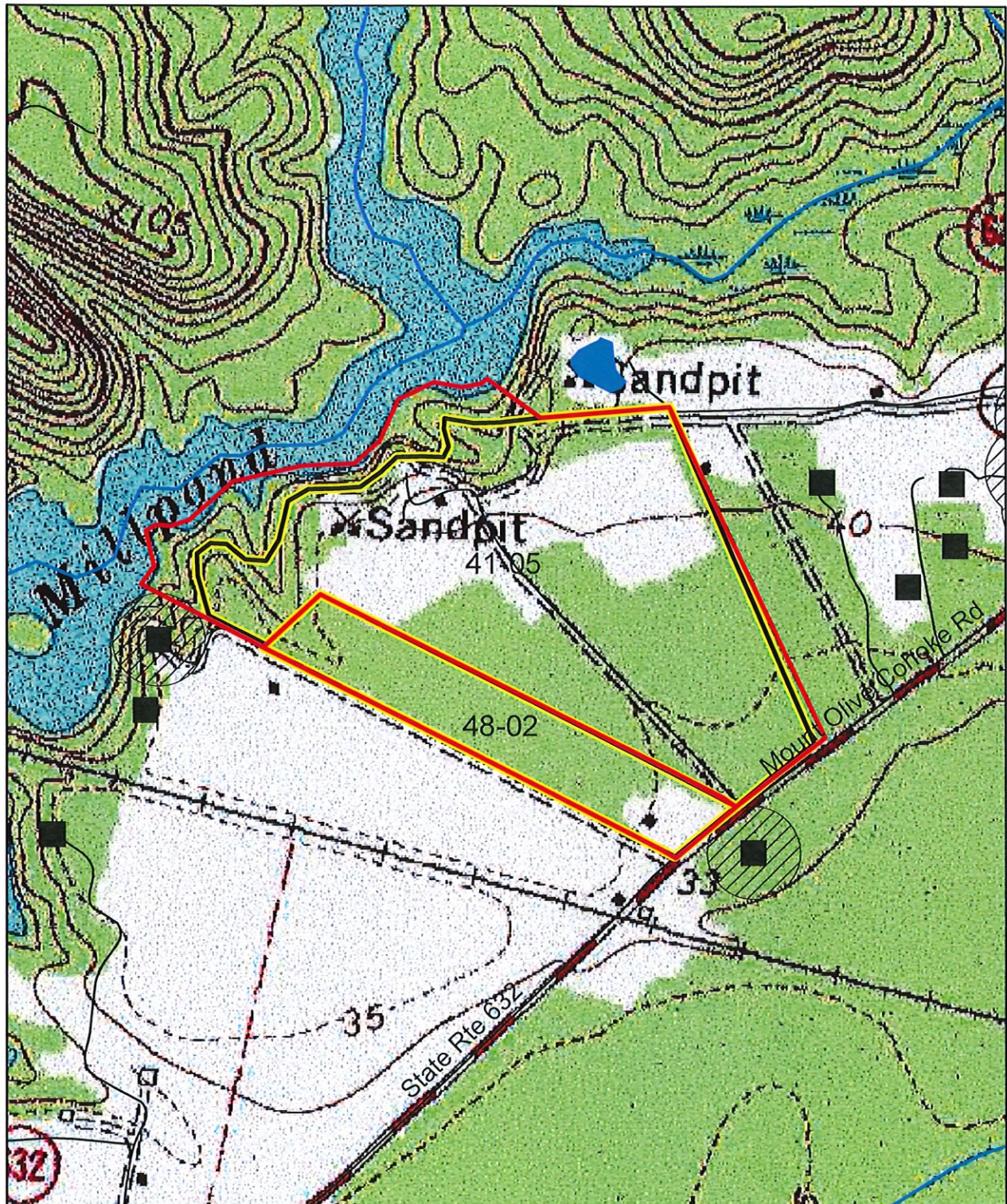


1 inch = 660 feet

TOPO MAP

1:7,920

FIELD	ACRES	FIELD	ACRES
41-01	44.2	41-03	30.1
41-02	6.6	41-04	43.2

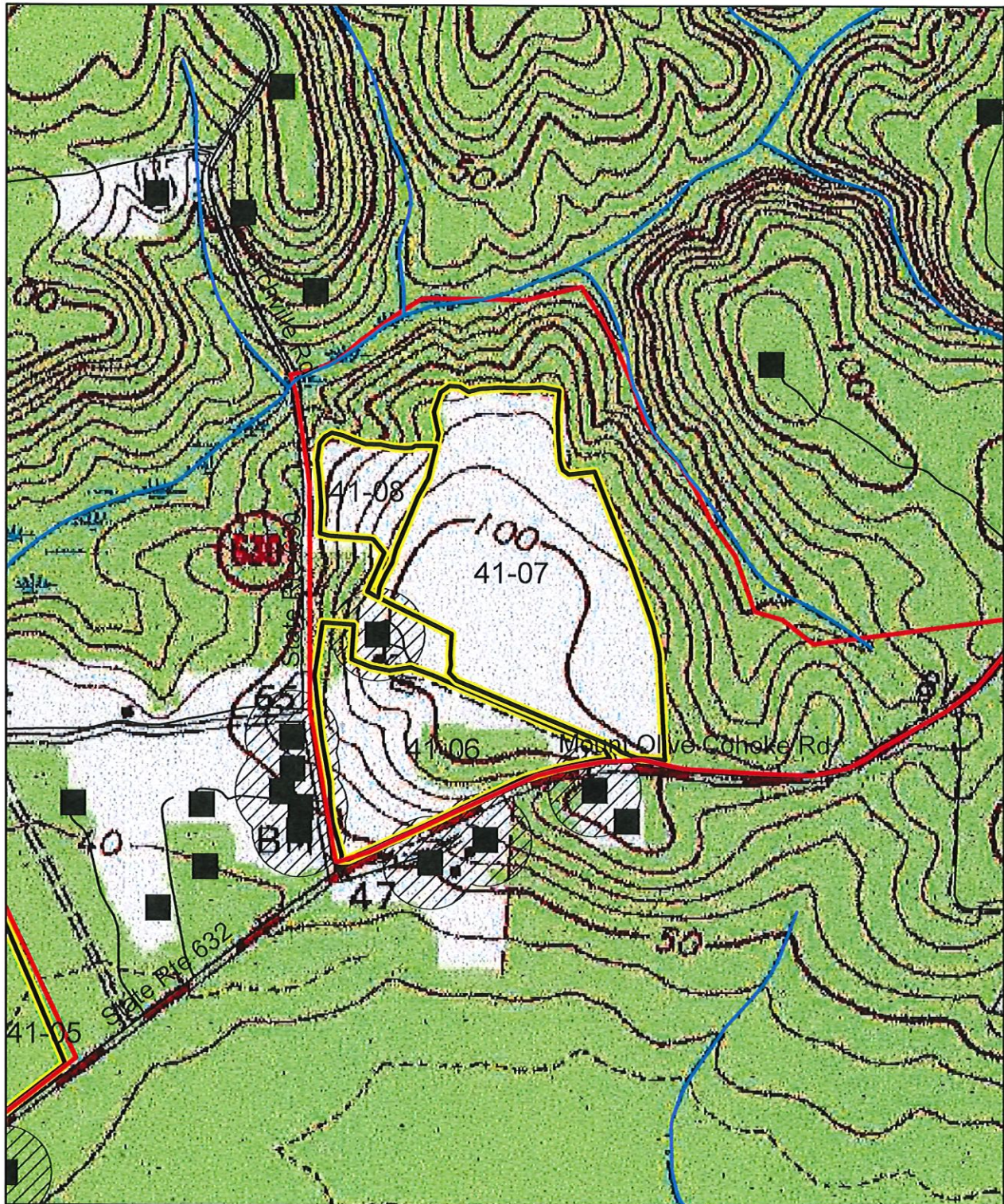


1 inch = 660 feet

TOPO MAP

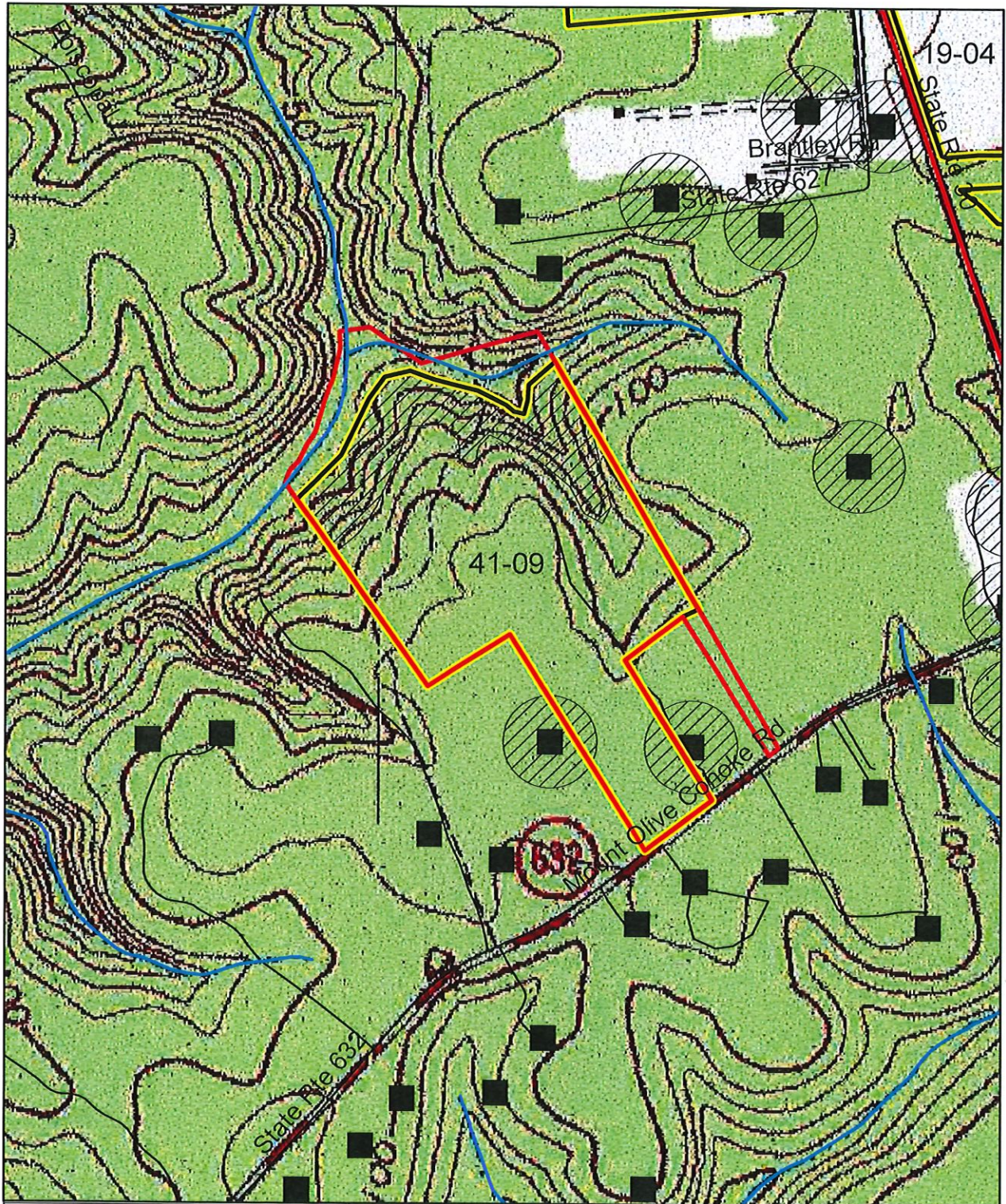
1:7,920

FIELD	ACRES
41-05	53.8



1 inch = 660 feet TOPO MAP 1:7,920

FIELD	ACRES
41-06	13.9
41-07	27.5
41-08	4.4

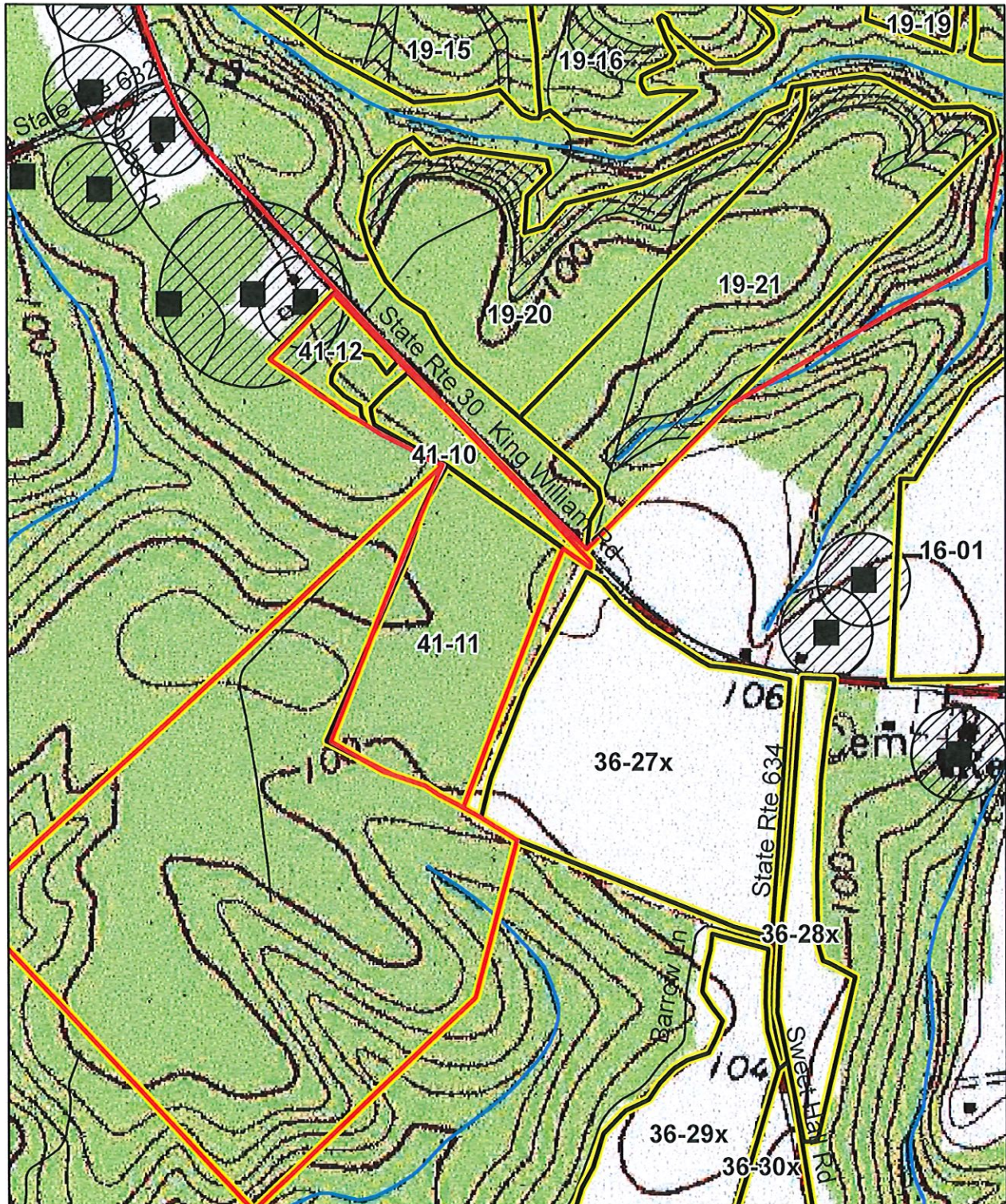


1 inch = 660 feet

TOPO MAP

1:7,920

FIELD	ACRES
41-09	40.8



1 inch = 660 feet

TOPO MAP

1:7,920

FIELD ACRES

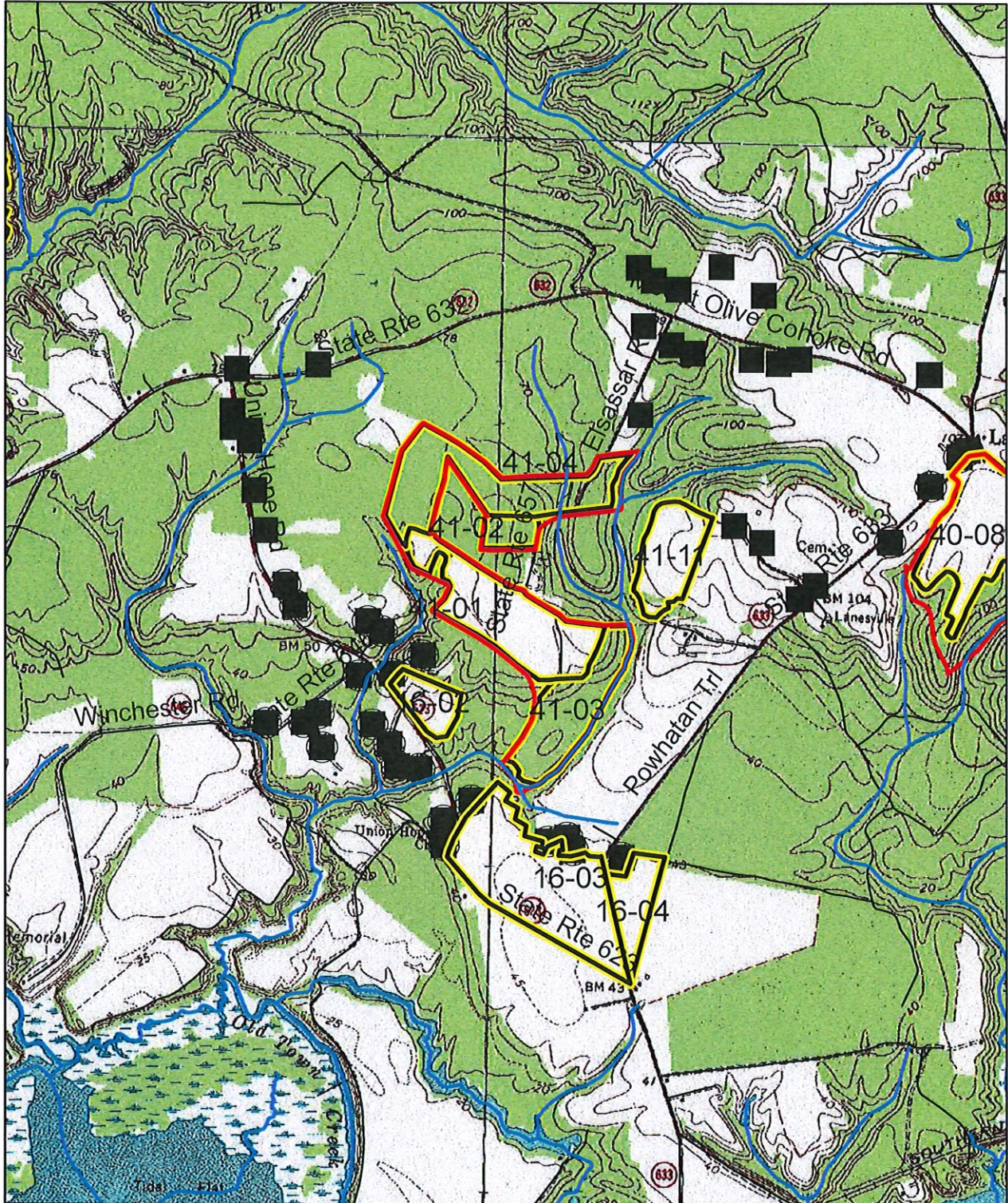
41-10 3.6

41-11 17.8

41-12 2.5

SYNAGRO

Cohoke Farm
KW 41
Fields 1-4



1 inch = 2,000 feet

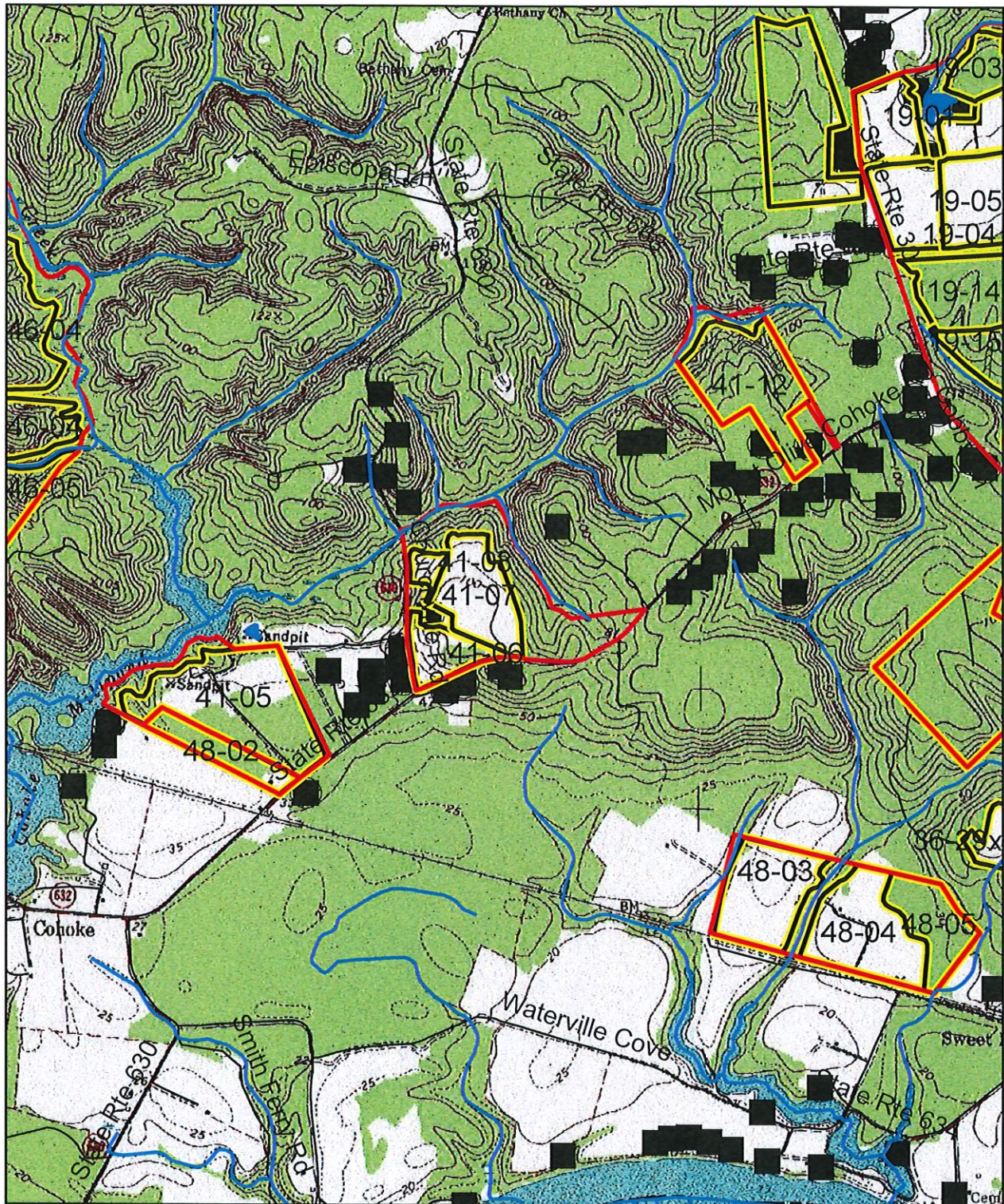
TOPO MAP

1:24,000

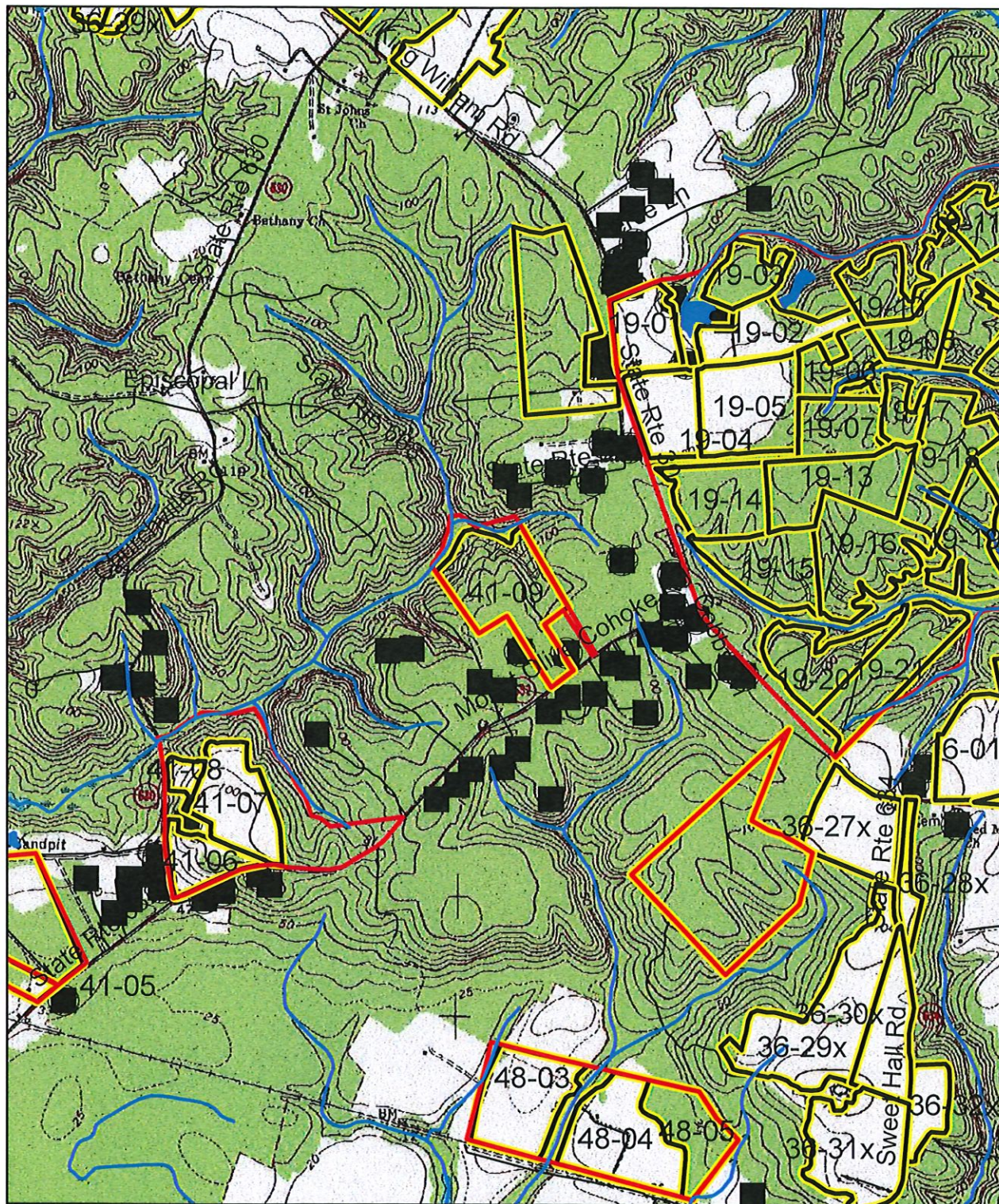
Cohoke Farm
KW 41
Field 5



1:24,000



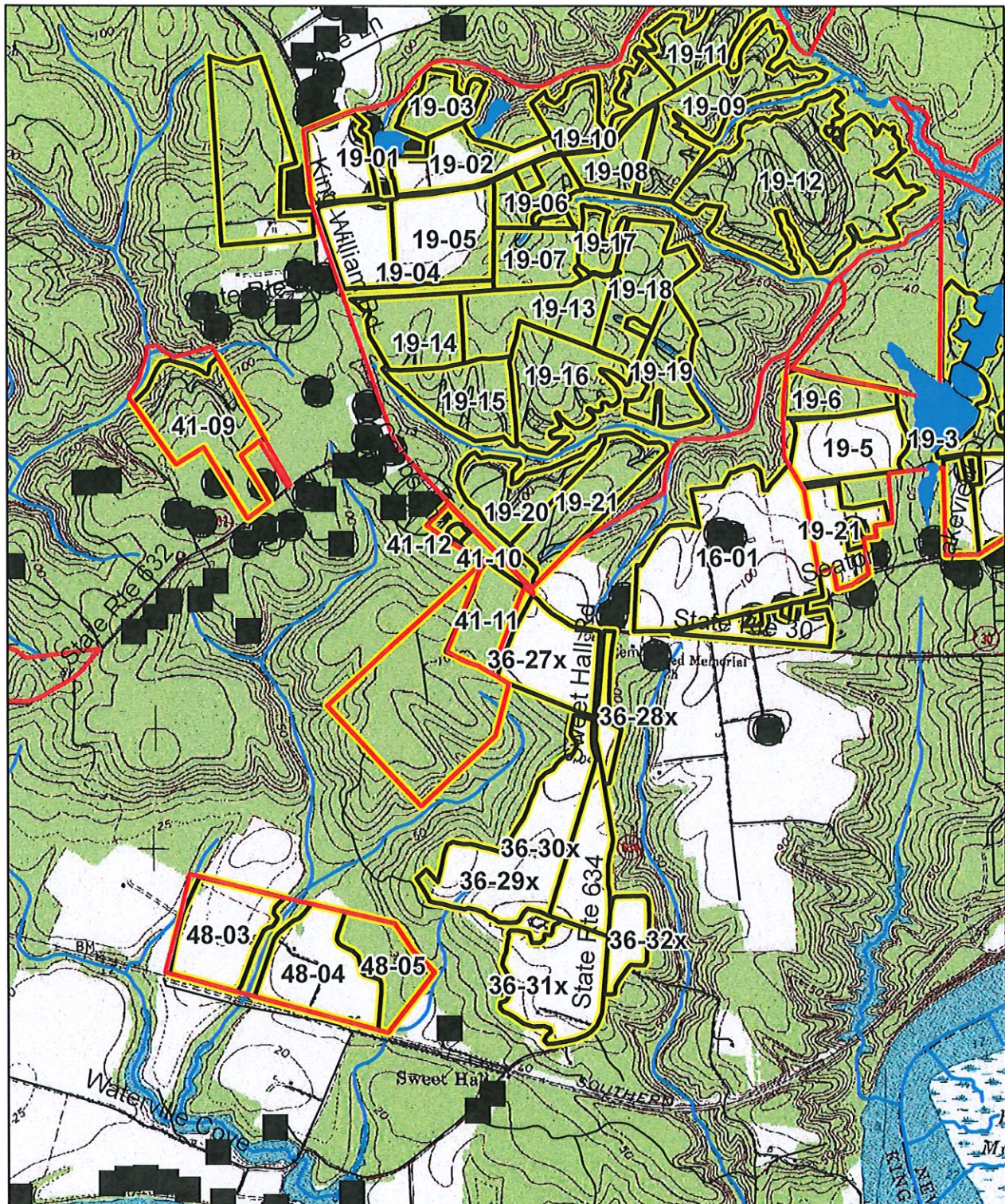
1 inch = 2,000 feet	TOPO MAP	1:24,000
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1 inch = 2,000 feet

TOPO MAP

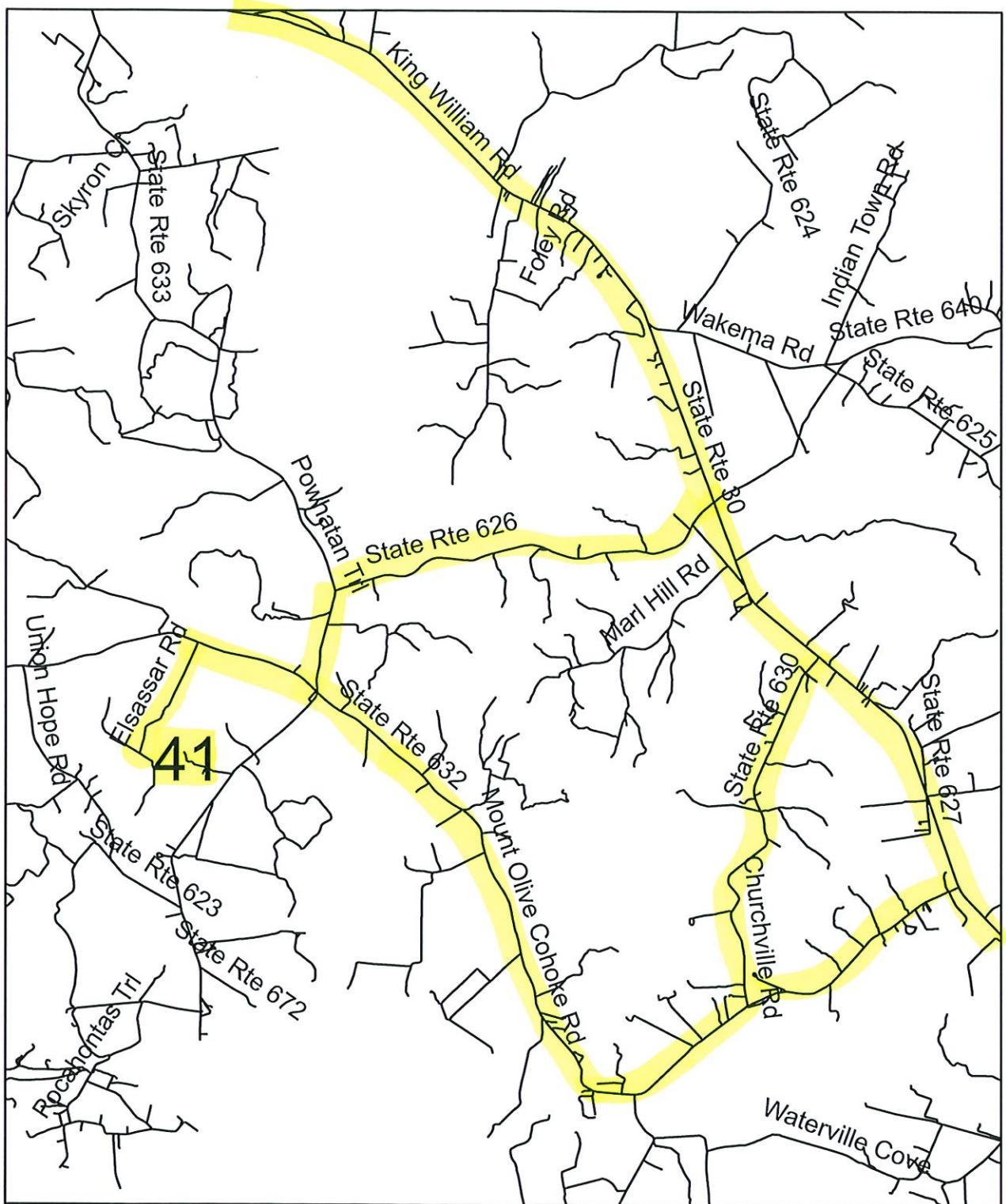
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1 inch = 2,000 feet

TOPO MAP

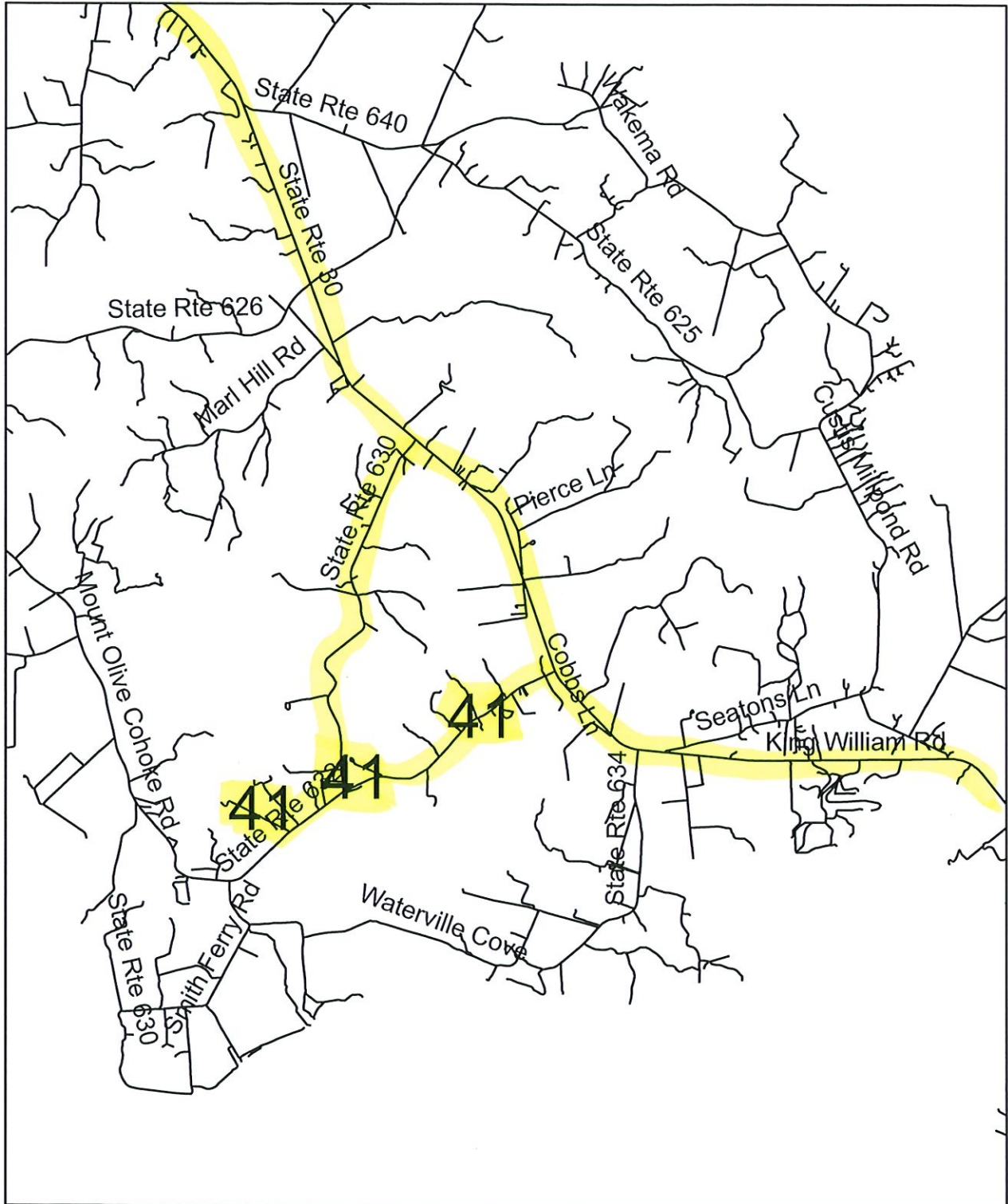
1:24,000



1 inch = 5,000 feet

LOCATION MAP

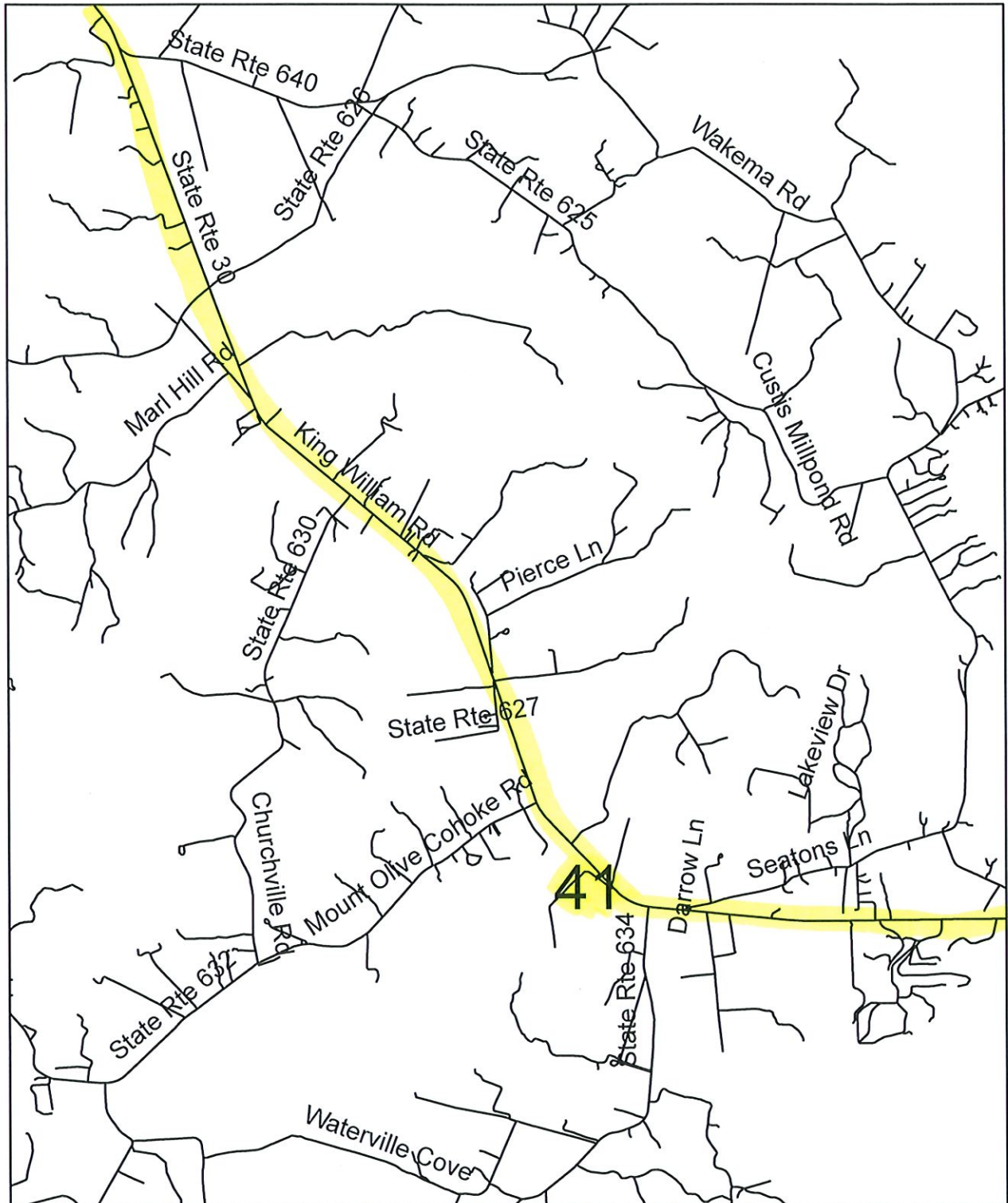
1:60,000



1 inch = 5,000 feet

LOCATION MAP

1:60,000



1 inch = 3,750 feet

LOCATION MAP

1:45,000

A detailed road map of Virginia, showing major highways, cities, and county boundaries. The map is color-coded with yellow for major roads and green for other areas. Major cities like Washington, D.C., and Richmond are clearly marked. The map also shows the state's borders with Maryland and North Carolina.

This map highlights all major routes from the approved generators to the locations of our permitted land. The highlighted routes on our Location Map will pinpoint routes closer to the site.